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Walker and Swift: *Journ. Exp. Med.*, 1913, XVIII, 75.

Kolmer Laubaugh, Casselman and Williams: *Arch. Int. Med.*, 1913, XII, 660.

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THE JOURNAL OF
CUTANEOUS DISEASES

VOL. XXXV FEBRUARY, 1917 NO. 2

ORIGINAL COMMUNICATIONS.

ACNITIS IN THE NEGRO.*

BY FRANK CROZER KNOWLES, M.D., PHILADELPHIA.

Instructor in Dermatology, University of Pennsylvania; Clinical Professor of Dermatology, Woman's Medical College of Pennsylvania.

THREE excellent papers have been written upon the subject of acnitis by American authors; the first by Pollitzer in 1892, the second by Schamberg in 1909, and the third by Ketron in 1915.

The subject of acnitis still offers a considerable field for elucidation. If one glances over the various terms that have been applied to the condition, the chaotic state of our understanding of the disease can be readily realized. A capitulation of the various cognomens applied to the outbreak, although already mentioned in other publications, would prove interesting. T. Fox termed the condition follicular lupus; Kaposi gave the disease the name acne teleangiectoides; Crocker that of acne agminata; Pollitzer named it hidradenitis destruens suppurativa; Pringle called it "A Rare Seborrhœid of the Face"; Ketron states that other titles, such as colloid degeneration of the skin, acne luposa, lupus miliaris, and varus nodulus, have been applied. Barthélemy, however, was the first to designate the term acnitis, as applicable to the affection.

* Read before the 40th Annual Meeting of the American Dermatological Association, Washington, D. C., May 8 to 10, 1916.

The titles used as descriptive of the disease show that the field is divided as to whether the affection should be classed under those conditions related to tuberculosis of the skin, or should be viewed as a distinct entity. Investigations which would prove conclusively that the disease was related to tuberculosis cutis have been, in most instances, negative. Finger recorded the fact that one of his patients with the affection gave a positive tuberculin reaction and also developed a tuberculous meningitis during treatment. Ketron mentions that in fifty histological preparations, two organisms resembling tubercle bacilli were discovered. Besnier reported a positive inoculation test: the animal, however, did not die until three months after the injection. Jadassohn has recorded the most suggestive findings; his patient gave a positive tuberculin reaction and inoculation of animals proved successful. A tuberculous proctitis was observed in his case. Ketron's bacteriological results were entirely fruitless. Gilchrist, Schamberg, and also Pollitzer had negative findings, notwithstanding their careful investigations. Fox's cases were all delicate and one had been "threatened with phthisis" several years before the onset of the disease.

Case Report.

There came to the skin dispensary of the Pennsylvania Hospital, in February, 1915, a negro, having a poor physique, aged twenty-six years, and born in the South. According to the patient, the present eruption developed on the face six months before his visit to the clinic, has been persistent, and new lesions have been appearing more or less constantly. The outbreak is limited to the face and the neck and is most marked on the lower portion of the cheeks. There are fully two hundred lesions present, a few of which surround the mouth and are on the vermilion surface, close to the mucocutaneous junction. They vary in size from a small pinhead to a split-pea and are of a dark-red color with a little yellowish tinge; the exact shade of color is difficult to ascertain because of the jet-blackness of the negro's skin. The lesions are mostly of a papular or nodular type, a few are undergoing central necrosis, some have a very slight scale, others a minute crust, on the surface, but none is of a distinctly pustular variety.

A careful physical examination was made and the lungs gave suggestive signs of a beginning tuberculous process, although no bacilli were found in the sputum. The von Pirquet test gave a positive result. The Wassermann test was negative. Smears and cultures made from some of the lesions showed only staphylococci. Unfortunately, the patient, like so many of the negro race, absolutely refused further manipulation than the excision of two lesions from the neck, which restricted our investigation to a histological study and prevented inoculation experiments.

There was a sufficient amount of material to cut approximately one hundred sections; almost one-half of this number was examined for the tubercle bacillus. The result was unfortunately negative in our search for this organism.

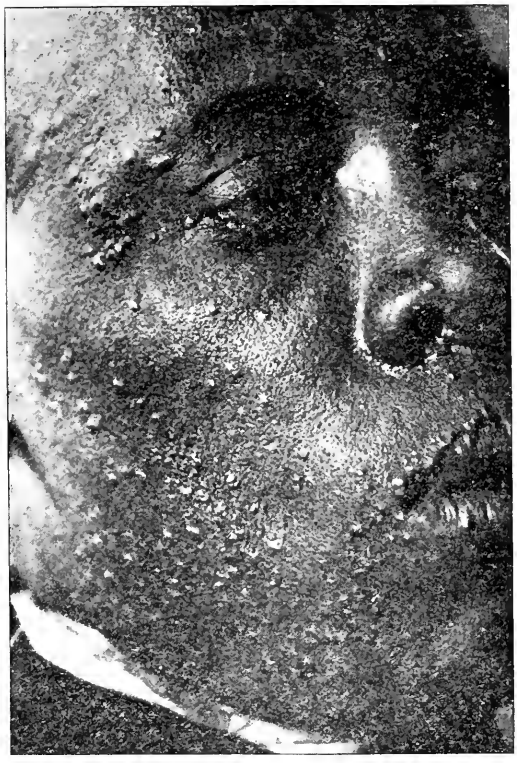

FIG. 1.

HISTOPATHOLOGY. The epidermis was found practically normal, excepting for the lengthening of a few rete pegs, and for the fact that the growth had broken through one small portion of this layer.

The corium showed a considerable number of cell masses, particularly prominent in the middle and subpapillary portions of this layer. These cellular infiltrations were of a rounded and longitudinal formation, varying considerably in size. They consisted of three distinct types of cells; small round cells, resembling those seen in ordinary inflammation; epithelioid cells; and large multinucleated cells, apparently giant cells. The cell masses were arranged in distinct groups, with, in a considerable number of instances, a well defined border. The corium between some of these cell infiltrations was absolutely normal. These groups of cells consisted of from a dozen or more, up to hundreds. There was a distinct tendency for the central portion of the cell infiltration to exhibit numerous giant cells, with epithelioid cells interspersed and surrounding the same, and a large number of small round cells forming the circumference. Although this was the dominating tendency of the growth, in some sections the major portion of the infiltration consisted of giant cells, in others epithelioid cells, while in still others there were almost exclusively small round cells. There was an increase of fibroblasts, surrounding some of these cell areas. Plasma cells were absent and mast cells were present in normal numbers.

Giant cells were present in large numbers, mostly in groups; as many as

twenty or thirty were seen in a single field. They were mostly of a rounded conformation, although some were oval or elongated. From a half dozen to twenty nuclei were observed in each cell, and they were arranged mostly around the entire circumference; but in others there was a segmental distribution. Occasionally a giant cell was seen, in which nuclei were also present in the central portion, as well as peripherally. A few giant cells were observed entirely alone in the corium, without the usual accompanying epithelioid and round cells. The giant cells varied tremendously in size, some being almost double the dimension of others. Very few of these cells conformed to the Langerhans type, but were probably of thrombosed blood vessel origin.

The growths were well supplied with blood vessels, both peripherally and running into the cellular infiltration. This central supplying of blood to the cell masses was, however, observed only in the beginning lesions. In the older lesion there was a distinct tendency toward coagulative necrosis in the centre of the growth. Some of the growths could be distinctly seen to lie in the course of the small blood vessels; two or more vascular branches from these channels were plainly visible, running into these infiltrations. The blood vessels were widely dilated, and quite a number of them were surrounded by small round cells, in some instances apparently continuous with the growth into which they ran. The endothelial linings of the vessels were quite swollen. Some of the sections showed considerable œdema of the tissues and widening of the lymph spaces and channels.

The hair follicles and the sebaceous glands were closely surrounded by some of the growths, but showed but little involvement. The sweat glands also, excepting for a slight infiltration with round cells, in some instances, were practically normal.

Pustulation in one of the excised lesions gave rise to a mass of leucocytes which presented a typical picture of an acute inflammatory process.

There is a great diversity of opinion as to the derivation of the pathological process observed in acnitis. Pollitzer considers that the affection is of sweat gland origin and that both the giant cells and the nests of epithelioid cells were derived from these glands. Pernet also believes that the fault lies in the sweat glands. Barthélemy is of the opinion that the process begins at the base of the hair follicle. Schamberg, Spiegler, and Finger found the diseased process in close proximity to both the hair follicles and the sweat glands. Jesionek found the cellular infiltration surrounding the hair follicles, sweat and sebaceous glands, although suggesting that it might have had its origin in the blood vessels surrounding these organs. Ketron apparently has traced the origin of the growths, in his case, from the small vascular channels which run into the growth.

The sections examined by the writer in the present case are very suggestive of blood vessel origin, as found by Ketron, notwithstanding that the cellular infiltration is found, in some instances, in close proximity to or actually involving, the hair follicle, sebaceous and sweat glands. It has been extremely interesting to compare sections from so-called sarcoid and lupus vulgaris, with the present case; and the resemblance between

FIG. 2.

Shows several cellular masses of a rounded and elongated conformation, composed of round, epithelioid and giant cells. Numerous dilated blood vessels with a surrounding infiltration. These blood vessels in several instances can be seen running into the growths. One large giant cell, separated from the other cells, can also be seen. There is also a beautiful section of a hair and sebaceous gland seen in the field. The pigment in the negro's skin is also well shown in the lower portions of the epidermis.

FIG. 3.

Shows where the epidermis has been broken through by the cellular growth. Widely dilated blood vessels radiating into the growth. Other portions of the cellular infiltration are seen without a central blood supply. Round, epithelioid and giant cells are also seen as in the former section. Fibroblasts are also present in increased numbers. Two particularly large giant cells are seen, one in the elongated cellular infiltration and another entirely alone. The pigment in the negro's skin is also well shown. In both sections it is clearly presented that the majority of the giant cells conform to the thrombosed vessels.

the three is very marked, notwithstanding that the consensus of opinion points toward the inflammatory nature of acnitis and that there are very few giant-cells of the typical Langerhans type present, but mostly those conforming to the thrombosed vessel variety.

In conclusion, it might be stated that four months after the patient came under observation, all of the active lesions had disappeared, some having undergone involution without the production of scars but the majority leaving round, oval or irregularly shaped, pit-like cicatrices. The mild applications and X-ray treatment employed, apparently had little effect upon altering the course of the affection.

This is the first case of acnitis that has been reported as occurring in the negro, in so far as the writer has been able to ascertain.

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Pollitzer. *Jour. Cutan. and Gen.-Urin. Dis.*, 1892, p. 9.
Schamberg. *Jour. Cutan. Dis.*, 1909, p. 14.
Ketron. Johns Hopkins Hospital Bulletin, April, 1915.

Discussion.

Dr. Hartzell thought it unfortunate that it had ever been called acnitis, a name which meant nothing. We knew little or nothing about the real nature of the affection; although it resembled in some of its histological features, tuberculosis; in others it differed from that infection. It was apparently a self-limited disease, which would hardly be the case if it were tuberculous. Some of the giant cells presented in the lesions were not of the Langerhans type, but probably transverse sections of occluded vessels.

Dr. Wile wished to call attention to the fact that several years ago he had reported a case of papulo-necrotic tuberculide in the negro, associated with lupus erythematosus. The speaker believed that they would soon have to give up the interpretation of tuberculide as it was now understood, in favor of the view that all such lesions were actually true tuberculoses, occurring in different forms.

Dr. Knowles said he had not thought of their differentiation in the end, as he had just read the resemblance to tuberculosis cases. It was extremely hard to understand the tuberculous nature of the lesions and of the difference in the cells present. In some, the typical Langerhans cells would be entirely absent. They found, clinically, that there seemed to be a tremendous difference as to their number and distribution.

FURTHER OBSERVATIONS ON SO-CALLED WHITE SPOT DISEASE OR SCLERODERMIA CIRCUMSCRIPTA.*

By Fred Wise, M.D., New York, and I. Rosen, M.D., New York.

From the Department of Dermatology and Syphilology, College of Physicians and Surgeons, Columbia University

Introduction.

In a paper published three years ago in the Journal of Cutaneous Diseases, we† expressed the opinion that the recorded cases of so-called white-spot disease fall into two groups, namely, the lichen planus sclerosus group and the scleroderma group. This conclusion was based upon a perusal of the literature and an analysis of case reports dealing with the two affections, together with a study of our own material.

On the first contemplation of the subject, our minds were open to the question of a possible relationship existing between lichen planus sclerosus and circumscribed scleroderma, or morphœa guttata. Additional clinical observation and microscopic study have strengthened our conviction regarding the duality of these dermatoses; out of the confusion of impressions, certain conclusions resolved themselves clearly. It must be conceded, however, that instances have been recorded, notably those of Fordyee,[1] Ormsby,[2, 3] Hazen,[4] Riecke,[5] Herxheimer,[6] Hoffmann,[7] Fischer,[8] and Bizzozero,[9] in which a strict differentiation entails the consideration of subtle distinctions, clinical as well as histological, with reference to one or the other type of disease. At present, we can only mask our vague conceptions of these cases by saying that they must be classed among the "transitional" or "connecting link" types of dermatoses. To avoid the danger of admitting materials not germane to the whole subject, it is best, at the present time, to accept the views of the majority of investigators. These views have been summed up in a statement which we quote from our[17] first paper on the subject, namely, that "the consensus of opinion among writers is overwhelmingly in favor of recognizing two distinct groups of diseases giving rise to 'white spots.' The first group comprises white-spot disease, morphœa guttata or circumscribed scleroderma; the second group is represented by lichen planus sclerosus and atrophicus, a condition conceded to be identical with lichen albus. The first group belongs to the scleroderma family, the second to the lichen planus family. Cases of the 'transitional' type

* Read in abstract before the 40th Annual Meeting of the American Dermatological Associaiton, Washington, D.C., May 8 to 10, 1916.

† MacKee, George M., and Wise, Fred. White Spot Disease. *Jour. Cutan. Dis.*, Sept., 1914, xxxii, No. 9, p. 629.

may require further study in the different stages of their evolution, but there is little doubt that ultimately they will be relegated to one or the other of the two groups mentioned above."

The propriety, in selected instances, of the name "white-spot disease," has been impressed upon us by certain examples of sclerodermia guttata which we have encountered at various clinics and dermatological societies. Granted that these peculiar cases are merely bizarre forms of circumscribed sclerodermia, or scattered and confluent patches of morphœa, it is nevertheless undeniable that certain examples of the affection exhibit lesions of such a striking intensity of whiteness, as compared with ordinary sclerodermia, that no designation more fitting than "white-spot" can be applied to them; even to the untrained eye, their color presents a marked contrast to the ordinary yellow, yellowish-white, or pearly-gray of the more common forms of morphœa guttata. This difference in the color tone was especially notable in a comparison between the pearly-gray lesions presented by the subject of the present report, and the pure white lesions described in our first patient (MacKee and Wise). In both patients, it is true, the color of the spots may be said to be white; but while those of the former present the ordinary yellowish-white and pearly-gray of sclerodermia, those of the latter simulate little discs of pure white paper, imbedded into the skin. This difference in the degree of color may explain the unwillingness of certain authors (who may never have encountered an instance with glaring white spots) to employ the term white-spot disease in the description of their cases.

Unna [10] believes that the white color in his "card-like" sclerodermia is in part due to refraction from the subepidermal vacuolization existing in some lesions. He states that "the disappearance of the vessels, with persistence of the collagenous tissue alone, would lead only to a waxy-yellow, somewhat transparent color, something like diffuse sclerodermia, old keloids, the keloid-like sclerodermia and so on; *i.e.*, the color of dead, anæmic skin. The *chalky*-white change indicates something more, namely, marked refraction from a white background." But it is probable that other factors are also involved in the production of this phenomenon, for some of the sections which have been examined, taken from white spots, present little or no vacuolization.

In the consideration of this subject it should be stated that the terms sclerodermia guttata, sclerodermia circumscripta, morphœa guttata, Unna's card-like sclerodermia, etc., are employed to designate the same clinical entity, and that white-spot disease may be regarded merely as a sub-variety of the same affection.

Recent Reports of Sclerodermia Guttata.

Since 1914, several reports on sclerodermia guttata have appeared, among them being those of Pernet,[11] W. K. Sibley,[12] J. L. Bunch,[13] Silva Jones,[14] A. Breda,[15] and E. Bizzozero.[9] The papers of the last three authors contain histological investigations of their cases, making them more valuable for comparative study.

F. Silva Jones and H. M. Turnbull. Sclerodermia Guttata. The case that I am bringing forward is that of a woman, aged 55 years, who was an in-patient at the London Hospital, in March, 1909, and treated as being a doubtful case of alcoholic poisoning. She was complaining then of pain on being touched, especially on the abdomen and on the calves of the legs; she had also a prolapse of the uterus. She improved with rest and treatment. At this time she gave a history of a severe fall, three years previously, the abdomen and both legs being badly bruised, and of never having been well since. The accident was followed by pain in the stomach. Her knee jerks were glib and her plantar reflexes were flexor. The patient's father died of asthma when she was 18 months old; her mother is alive and was well until two years ago, when she had bronchitis; her age is 80. One brother died of consumption, aged 30. She has five sisters, alive and well. She has had three children, but lost two in confinements; the remaining one is alive and well; she has had one miscarriage.

On April 29, 1915, when I first saw her, she complained of pain in the abdomen, coming on every two to three months, and a band of pain around the forehead. She had a fat, full face, suggesting an alcoholic habit, although she denied alcoholic excess at any time, and stated that for the last eight years she has taken no alcohol at all. She was garrulous, and there was a good deal of over-action in her face, when talking. The heart and lungs showed nothing abnormal; the liver was not enlarged. On palpation of the abdomen, there was pain all over, reaching as high as the costal margins; a pulsating aorta could be felt. The pupils were equal, reacted to shading and the eye movements were good. The palate and the sclerotics were insensitive to touch. The cranial nerves showed no abnormality. The knee jerks were glib and equal; sensation was good over the legs; the plantar reflexes were flexor; clonus was not present; passive position was good, and the calves were slightly tender on deep pressure. There was no sphincter trouble. There was no history of syphilis, and the Wassermann reaction was negative.

On the right side of the abdomen, between the umbilicus and the groin, in the area corresponding to part of the distribution of the tenth dorsal root, and not extending over the middle line, was an area, 9.5 cm. by 3 cm. at its widest part, in which were some seventy individual lesions of a pearly-white color, let into the skin like a mosaic, flush with the surrounding skin, some discrete, others joining with the neighboring spots to form an irregular pattern; where fusion was present, on pinching up the skin, the division could be made quite plain. Most of the solitary lesions were about the size of a pinhead, and between them, except where they join, was a band of normal skin. Each plaque was indurated, showed no umbilication, was anæsthetic and showed no inflammatory zone around. The indurated skin, on moderate pressure, retained its mosaic-like structure, but bent on firmer pressure. Above the whole lesion, and extending to the upper and inner and to the upper and outer ends, was a border of very fine teleangiectases, well seen in Fig. 1, 1.5 mm. in width. In about half the number of the separate lesions were one or two minute teleangi-

ectatic red spots; in one instance, two connected by a fine red line. A portion of the affected skin was removed for microscopical examination. On the left leg, just below the knee, on the outer side, was a second group of lesions, 4 cm. by 7 cm., extending diagonally down and out, of a more or less square shape, particularly at the lower end, in the skin area supplied by the fifth lumbar root (Fig. 2). The individual spots numbered about forty, and in one lesion only, there was a minute teleangiectasis. Several of the spots appeared umbilicated and there was no inflammatory areola. In two instances, the spots tended to coalesce and form larger masses than in the abdomen, the largest measuring one cm. square and the other about one-half that size. There were a few scattered teleangiectases in the leg in this region, but they bore no apparent relationship to the lesions. The spots on the leg were not so white as those on the abdomen, the induration was not so marked. The characteristics were similar, but they did not show up in such a decided manner. In the centre of the patch, and showing in Fig. 2, were two raised papules of a brownish color. The patient's own account was that the white spots appeared as a papule first; they then irritated, were scratched, and died away, leaving a white spot. One papule was removed for examination. The area on the leg had not been present for more than three weeks, in its present size. Formerly there were only a few spots, and the patient had her attention drawn to them by the irritation. On Sept. 22, 1915, the lesion was about the same size; there was a scar across the lesion, where the portion had been excised; the remaining papule had disappeared, without, I think, leaving a white spot behind. The scar had altered the relationship of the spots, and it was not possible to be certain as to this point. In the older lesion on the abdomen, the case appears to differ clinically, from any of the reported cases in the literature, in its association with teleangiectases, which appear around the upper, inner and outer margins of the lesion, and which are also seen in the spots themselves, facts which are brought out in the accompanying photograph. The spots on the leg differ from those on the abdomen, because:—some have coalesced to form a larger area; they are not so white in color; some are umbilicated; the induration is not so marked; in only one white spot is there a teleangiectasis; although there are a few scattered teleangiectases in this region, they have no apparent relation to the lesion itself. Dr. Turnbull has kindly examined the two portions of skin removed, and his report is as follows:

(Dr. Turnbull's Summary of the Histopathology.) The main features in the sections of the first specimen are: A perivascular infiltration of the dermis, which is either confined to a narrow zone round vessels, or forms large cellular patches; proliferation of fibroblasts and destruction of elastic fibres in these patches; widening, congestion, and a hyaline degeneration in and around the walls of many vessels in the outer part of the dermis; the presence of sclerotic fibrotic areas in the papillary and adjacent outer portions of the dermis, either in the form of narrow zones round vessels or of large lenticular regions; the frequent presence of patches of infiltration at the borders of these sclerotic areas; the scarcity of elastic fibres of normal thickness in the areas, and the presence of abnormally fine elastic fibrils in a few; the presence, in the sclerotic areas, of vessels which show abnormalities similar to those in other portions of the dermis; the inclusion of portions of sweat ducts in the sclerotic areas; cystic dilatation of sweat ducts in the deeper part of the dermis; groups of very large, multinuclear giant cells immediately beneath, or against the side of, the sclerotic area.

These features would appear to be explained best on the assumption that the dermis is the seat of a chronic inflammation which is excited by some damaging agent, brought by the blood stream. The sections afford no evidence that

this agent is a bacterial product. The agent causes necrosis of the walls of vessels, particularly the capillaries in the papillary zone, and excites a reaction in the surrounding tissue, which leads ultimately to the formation of dense scar tissue. As in other scar tissue, the original elastic is destroyed and a later formation of new elastic fibres is demonstrated by the appearance of abnormally delicate fibrils. Owing to the presence of scar tissue in the outer zone of the dermis, sweat ducts are constricted, and their dependent parts become cystic. Portions of sweat ducts or other epidermal appendages are destroyed by giant cells. Unfortunately, the small size of the specimen, and the destruction of the greater part of the original block by a partially trained servant, did not allow the above explanation of the pathological process to be proved or disproved, by serial sections. The groups of large, multinuclear giant cells resemble those which are sometimes found in operation scars. In operation scars the giant cells may be found surrounding sweat ducts or other epidermal appendages. In the case under discussion it must be stated that no trace of any epidermal or other body was found among the giant cells.

The second specimen was removed in the expectation of demonstrating the earliest stages of the process. In this section, apart from slight perivascular infiltration, the only abnormalities were a large epidermal cyst and a slightly dilated sweat duct.

It is impossible to believe that the features seen in the first specimen were initiated by the formation of epidermoid cysts. The process might, however, have originated in an inflammation of epidermal appendages, and such an inflammation might have led, incidentally, to the formation of cysts. Such an origin appears most unlikely in view of the healthy appearance of the epidermal appendages in the non-sclerotic, but infiltrated, portions of the dermis in both specimens. Thus, there was no infiltration within or around the sweat ducts and glands; infiltration was only present round two hair follicles, and was slight in amount. It is more probable that the cysts in the second specimen were due to the process assumed above; that is, to involvement of their upper connections by areas of sclerosis. Unfortunately, the amount of tissue available for serial sections was not sufficient to reveal these connections. No areas of sclerosis were present in the sections obtained, but on macroscopic examination the finely wrinkled, white appearance of the epidermal surface indicated that sclerosis was present in parts of the specimen.

A. Breda. Sclerodermia Guttata. The patient was born in 1842, married at the age of 23 years, and had given birth to six healthy children. Nothing abnormal was to be seen on examination, excepting the condition of the vulva. Several months after the cessation of the menstrual periods, she had been attacked by a severe and obstinate pruritus vulvæ, for which she came under treatment. On account of an existing leukokeratosis, a considerable portion of the vulva had to be excised, followed by thermo-cauterization of the parts. About three months later, some efflorescences appeared, first on the sides of the neck and, a few weeks later, on the chest. From being punctiform at first, the eruptions in a few weeks became lenticular, white, without areolæ, not raised above the skin level, and associated with slight itching. Without causing especial subjective symptoms aside from the mild pruritus, the eruption gradually increased, spreading posteriorly to the sides of the neck, beneath the clavicles and on the upper half of the mammary regions, with symmetrical regularity. They continued to be without areolæ or redness; they were white in color, not raised or prominent, but flattened, then depressed, round or oval, with regular margins, without visible pigmentation; the white color was of different shades, from opaque to slightly glistening, the glistening appearance

becoming gradually more pronounced. Depression rapidly developed, and the surface of the depressed areas appeared granular around the few remaining hairs, which dropped out as the condition progressed. No wrinkling of the epidermis was demonstrable over the small diseased areas, nor could the white spot be raised from the surrounding skin.

The patient returned to the clinic in 1907, on account of the recurrent vulvar pruritus. At this time, the white spots were practically all depressed and glistening; some few showed a follicular crust; in groups made up of scanty rows of papules, they surrounded the neck and passed down on the chest like a necklace, consisting of white glistening elements. In a general way, this condition remained unchanged until December, 1913. Examination at that time showed the patient to be in an excellent state of general nutrition. At the base of the neck, posteriorly, were seen two groups of spots, one on each side, about twenty in number, white, glistening, lenticular, round or oval, depressed in the centre, without hairs, without epidermal crusts. Between these two groups were about a dozen similar spots. From the middle of each clavicle, numerous white spots ascended towards the neck and descended towards the breasts. The groups on the right side were an opaque white, those on the left side were glistening white, the lower ones resembling mother-of-pearl. None of the spots showed scales which could be scraped with the nail. Wrinkling of the surface was absent. The chest and neck were devoid of hairs. Itching had always been present over the site of the lesions. Inspection showed atrophic depressions of the affected spots, but these could not be felt, on account of the stoutness of the patient.

Histopathology. In the skin segment excised in 1907, the horny layer was thinned and showed imperfectly cornified cells, occasionally with stained nuclei (parakeratosis). At some points, the stratum corneum was separated from the granular layer, the latter being represented, practically throughout, by a scanty row of cells, containing keratohyaline granules. The reticulum was devoid of pigment and of mitotic figures; the spines were faintly stained; some of the basal cells showed a perinuclear œdema; there was no intercellular invasion of leucocytes. The papillæ were atrophied and their separation from the epidermis was marked by a slightly undulating line. In the papillæ, the vascular loop was surrounded by a moderate leucocytic infiltrate; the lymphatics were dilated; at the base of the papillæ, the infiltrate was still less marked. Infiltration was absent around the follicles, sweat and sebaceous glands. The elastic tissue in the papillæ was well preserved. Throughout the entire thickness of the skin, but especially in the superficial portion, the connective tissue fibres were increased and formed a dense layer, containing a scant number of connective tissue cells. The walls of the papillary vessels were surrounded by leucocytes, the lumina of the vessels were not enlarged, their endothelial cells were normal; œdema, karyokinesis, etc., were absent. In longitudinal and transverse sections, the walls of the blood vessels were seen to fuse with the newly formed connective tissue. Pigment masses and chromatophore cells were seen nowhere in the corium.

In the specimen examined in December, 1913, the horny layer was more loose than in the preceding section; the rete showed neither pigment nor œdema; its attachment to the derma was marked by a slightly undulating line. The nearly flattened papillary body was devoid of infiltration. The blood vessels and lymphatics were narrowed, their walls less distinct, but the endothelium was normal in appearance; the superficial elastic layer was normal. The connective tissue was more abundant and much thicker, and was fused with the outer coats of the blood vessels. The connective tissue fibres were disposed in a horizontal direction and were intersected by a normal amount of elastic tissue

fibres. Hairs were absent. The sweat gland ducts and sebaceous glands were few in number, surrounded by newly formed connective tissue, their epithelium being atrophic, although well stained.

Taken together, the preparations would seem to show a true inflammatory process, involving the papillæ and part of the reticular layer of the corium. This process, without exhibiting a true acute stage and without more than a barely demonstrable inflammatory œdema, nevertheless, had led to a gradual new formation of connective tissue, which, in its development, caused atrophic changes in the epidermis and the papillæ, as well as the appendages, while the elastic tissue remained unaffected.

A separation between sclerodermia or morphœa guttata, and white-spot disease, may, up to a certain point, prove difficult, and perhaps rests upon personal impressions. In the author's opinion, it is doubtful if white-spot disease is entitled to rank as an affection of the skin, distinct from sclerodermia guttata.

E. Bizzozero. Sclerodermia Guttata. The patient was a woman, aged 54 years. Her family history was negative. Her skin affection was of three years' duration and began during the menopause, in the course of which the lesions gradually increased in size. Subjective sensations were absent.

Present Condition. The lesions are symmetrically disposed above and below the clavicles, extending backwards to the upper borders of the scapulæ. The elementary lesions are pinhead in size, level with the surrounding skin and have rounded borders. They are remarkable for their mother-of-pearl white color and their glistening surface. In addition, there are larger lesions with similar white, glistening surfaces and round and oval, well defined margins. Palpation does not reveal an increase in their consistency. Many of them show a punctiform depression, like the prick of a needle-point in wax. The overlying skin presents fine wrinkles, more evident when the lesion is put on the stretch, giving the impression of a redundant surface covering. The overlying skin can be removed *in toto*, revealing a smooth, mother-of-pearl surface, which rapidly becomes covered by a light-colored, serous fluid, without a trace of blood. None of the elementary lesions show a sign of pigmented halo. These efflorescences coalesce into two plaques, one on the right, the other on the left clavicular region, each accompanied by an area of pigmented integument. These plaques have the characteristics of the individual lesions; that is, they have a mother-of-pearl color, in some areas they are yellowish, possess a marked wrinkling of their surfaces and distinct punctiform depressions; but horny plugs are absent. The borders of some of the plaques present an indistinct bluish-white halo, which at times disappears, only to return for a time.

Histopathology. An elementary lesion was examined and presented the following changes: The horny layer was thickened and compact, becoming wider toward the centre of the papule and dipping down into the dilated sweat gland orifice, assuming a lamellated structure. There were no signs of parakeratosis. The Malpighian layer was markedly attenuated, showing no evidences of interpapillary pegs; it was separated from the corium by clefts, here and there, containing epithelial debris. In the basal cell layer, pigment was wanting. The corium presented an absence of papillæ, corresponding to the rete pegs, and portions of the papillary and subpapillary regions depicted sclerotic changes. The connective tissue bundles could barely be distinguished; they were disposed in parallel strands and appeared as a homogeneous mass, staining poorly, and poor in cellular elements. The blood vessels had almost entirely disappeared, but dilated lymph channels were still present. At the lower border, the sclerotic connective tissue was pretty well defined by a zone

of lymphatic infiltrating cells, varying in thickness. This infiltrating zone was somewhat bow-shaped, its concavity upwards, the two extremities of the arch coming into contact with the epidermis above. Among the lymphatic cells there were numbers of young connective tissue elements, rich in protoplasm, and containing large, vesicular, elongated nuclei. Elastic fibres were diminished, especially in the mid-portion of the lesion. The remaining elastic fibres had retained their staining properties, but were disposed irregularly. Beneath this zone there were no noteworthy alterations.

The author looks upon this case as an example of card-like sclerodermia. The absence of nerve disturbances in the patient and her family, the absence of itching and other sensations, the limitation of the eruption to the neck and clavicular regions,—an area also affected in lichen sclerosus, but much more common in sclerodermia circumscripta, —the absence of lichen planus papules, the non-involvement of the mucosæ, the wrinkling of the skin over the central parts of the plaques (mentioned by Dreuw, Rieeke, Fischer, and Meirowsky as a feature of circumscribed sclerodermia and never found in lichen sclerosus), the absence of cross-hatching in the patches, and the presence of a violet-bluish zone around some of the lesions,—all of these items are in favor of sclerodermia circumscripta.

Through the courtesy of Dr. Goldenberg, we were recently given the opportunity to study an example of sclerodermia guttata, exhibiting certain features which we think are of sufficient interest to justify a full report.

Case Report.

Patient. Mrs. Y. W., 48 years old, a native of Austria, was married at the age of 23 years. She entered Dr. Goldenberg's service at the Mt. Sinai Hospital Dispensary, for the treatment of a swelling over the left sterno-clavicular joint, which proved to be a periosteal gumma. Her husband died about five months ago, of "heart disease and kidney stones." The patient was pregnant five times. The first two pregnancies resulted in the birth of healthy infants, one of which died at the age of eight years, of scarlet fever, the other at the age of three years, of diphtheria. She had had three subsequent miscarriages, but could give no information as to the condition of the fœtuses. Recently she has suffered from mild headaches, but, aside from the swelling over the clavicle, she presents no evidences of active syphilis. The Wassermann reaction is four plus. The von Pirquet test is negative. Urine and blood-count are normal.

The family history is negative.

Physical Examination. The patient is a well nourished white woman, weighing 205 pounds. The scalp and hair, as well as nails, are normal. The pupils are irregular, contracted, the left being larger than the right, reacting to light and accommodation rather sluggishly. Ptosis, nystagmus or strabismus are absent. The thyroid gland, ears, nose and throat are normal. The teeth are in poor condition, the gums showing evidences of pyorrhœa. The tongue is moderately coated and projected mesially with slight tremor. The chest is well developed, expansion good, respiration regular and equal. The heart is

normal, the pulses equal, regular, with fairly good force and tension; there is no thickening of the arterial walls.

Over the left sterno-clavicular articulation there is a slightly bulging mass, somewhat tender on pressure. (This is a periosteal gumma, rapidly resolving under antisyphilitic medication.) The abdomen is prominent and tense. The spleen is not palpable. The liver can be felt on deep inspiration. On palpating the lower abdomen, a mass is felt, filling the pelvic space. Vaginal examination reveals a large, hard, fibroid uterus, extending to the umbilicus. The kidneys are not palpable. The external genitals are normal. The patellar reflexes are rather active, the right more pronounced than the left.

At the age of seven years, the patient sustained a hot water scald of the middle of the chest, between and partly on the breasts. The scalded area now presents a smooth, white, soft, depigmented and somewhat depressed scar, extending upward as far as the middle of the sternum and downward to the ensiform cartilage. The boundaries of this scar are well defined. There is no sign of keloidal changes within the scar tissue.

Five years ago, the patient first noticed the appearance of a few pinhead-sized, grayish spots, in the skin over the upper part of the sternum. She paid no attention to them, subjective sensations being absent in them. These spots gradually increased in number, extending upwards towards the neck, and involving the skin over the clavicles.

Skin. Occupying a roughly triangular area directly over the sternum and invading the skin of the anterior portion of the neck, between the clavicles, as well as that overlying the inner thirds of the clavicles, are a large number of discrete and closely aggregated, millet to pinhead-sized, yellowish-white and pearly-gray, smooth, glistening, sharply defined, round and oval papules, distinctly raised above the level of the surrounding normal integument (Fig. 1). The base of the triangle lies almost exactly over the mid-portion of the sternum, while its apex lies over the thyroid gland. Over this area the papules are irregularly distributed. In some spots they are grouped, the groups consisting of five or six, up to twenty or thirty elementary lesions, some of the latter being contiguous without being confluent, while others are isolated and surrounded by normal skin. Over the inner thirds of the clavicles, the papules are strung out in a linear arrangement, corresponding to the position of the underlying bones. At the lower border of the affected region there is an area about the size of a silver half-dollar, presenting a patch in which the individual papules have coalesced, so that their original outlines may be discerned only upon close scrutiny. The surface of this patch is smooth to the touch, yellowish-white in color and glistening, the skin appearing atrophic. Neither the grouped papules nor the isolated lesions present signs of a pigmented zone or a peripheral halo, nor are there any dilated vessels to be seen in their vicinity. There is no evidence of dilated follicular orifices, horny plugs or lanugo hairs, even when examined with a lens. On palpation the papules impart a distinct sensation of resistance. There is a total absence of scaling, crusting, exudation and inflammation. The papules cannot be scooped out with the finger nail. Viewed with the light striking the skin at an angle, the appearance of the papules is strikingly like that of lichen planus papules.

Three spots from which pieces of skin were removed for microscopic examination, now present small, hypertrophic, keloidal scars, traversed by dilated blood vessels.

No other portion of the integument is involved in the process. The buccal mucosæ are free of lesions.

Histopathological Examination. The three pieces of skin which

were removed for microscopic examination, represented, as nearly as could be judged, early and late lesions. Each section comprised a piece of the integument large enough to include from three to ten or more papules on its surface. Serial sections, stained in the usual manner, were studied from each of these pieces of tissue.

EARLY LESION. The horny layer shows no changes. The stratum lucidum is absent, the granular layer being composed of a single row of cells. The rete presents no noteworthy changes. The basal cell layer in many places presents a very indistinct outline, its component elements being separated and broken up. In these areas, the line separating the palisade cells from the underlying tissue is hazy and ill-defined. The epidermis presents no evidence of œdema. The rete pegs are irregular in shape and vary in size; some are long and narrow, others broad and flat, while still others form an anastamosing reticulum. Between the individual papular elements, the epidermis dips down into the derma; in these places the rete pegs are altogether absent.

In the corium there is a uniform œdema, resulting in marked swelling of the collagenous tissue. Its bundles no longer interlace in the usual oblique fashion, but are disposed horizontally, parallel to the epidermis. Fibroblasts are fairly abundant. The lymph spaces and vessels of the papillary and reticular layers are markedly dilated. Their endothelium is prominent and their lumina much distended and filled with blood cells or coagulated serum. Sheathing the vessels is a moderate infiltration of lymphocytes. In a few places, blood cells have escaped from the vessels. In the vicinity of some of the vessels there are a few branching cells, containing pigment, presumably chromatophores, which have picked up the pigment. The glands and follicles are unchanged, but around some of the latter there is a moderate collection of fibroblasts.

LATER LESION. In these sections two different phases of the process may be observed. The mid-portion and one side present a transitional stage, while the other side shows the end stage.

TRANSITIONAL STAGE. In this, the main epidermic change is seen in the lower most layer of the rete. The most striking feature here is the breaking up of the palisade layer, probably the result of degeneration of the papillary bodies. In the latter, there is a notable reduction in the number of capillaries and in the cellular elements, the tissue appearing as a homogeneous red-staining mass. In a few papillæ it appears granular, with loss of staining affinity. In the upper portion of the reticular layer, the collagen has, in places, undergone a marked alteration; the bundles of collagen have lost their outlines, they are fragmented, giving to the whole a reticulated or mesh-work appearance. In the deeper portions of the derma, the bundles of collagen are well preserved, are coarse, and contain but few cells, indicating the sclerotic process which pervades this region.

The blood vessels in the corium are few in number, and where present show marked constrictions of their lumina, together with a slight perivascular infiltration. The appendages are normal.

TERMINAL STAGE. Here the epidermis is reduced to a narrow strip of three or four layers of atrophic and flattened cells. The rete pegs and papillæ have disappeared. The underlying tissue is represented simply by sclerotic bundles of collagen, poor in cellular elements. The fibrosis has compromised the vessels, resulting in their disappearance, or leaving only a few traces, such as a slight inflammatory infiltrate, to indicate their former existence. The sclerotic process in the corium is manifested, not alone in the papular elevations,

but also, and to the same extent, in the depressed portions connecting each papule with its neighbor.

The elastic tissue presents scarcely any changes. Quantitatively, it seems to be well preserved, but it is somewhat irregular in its arrangement and disposition, corresponding to the structural changes in the collagen. In the papillary bodies, the elastic tissue appears to be normal.

These changes in the minute structure of our sections may be interpreted as representing three stages of the pathological process: the pre-sclerotic stage, or stage of inflammatory œdema; the sclerotic stage, associated, in this instance, with degenerative changes in the derma; and, finally, the stage of atrophy.

While the clinical appearance of the affected skin gave the impression that the integument between the individual papules was in every way normal, we learn from these sections that the skin between the papules, as a matter of fact, takes part in the sclerotic process, practically to the same extent as do the papules themselves. Furthermore, it would appear from these sections, that while the surface of the papular lesions apparently lies above the level of the normal skin, it is in reality *level* with the normal skin, while the areas between the papules are actually *retracted* or depressed. Attention has been directed to the dipping down of the epidermis where it separates one minute papule from its neighbor, and where the rete pegs and papillary bodies have completely disappeared. In these depressed interpapulary portions of the section, the sclerotic process is fully as pronounced as it is in the papules themselves. This accounts for the slightly sunken, circular patch of atrophic skin, apparently formed by the confluence of numerous grouped papular elements, as described in the clinical picture.

Briefly stated, the patient exhibits over the sternum and clavicles, an eruption of five years' duration, appearing insidiously and without subjective sensations, and consisting of numerous groups of small, burnished, discrete and confluent, smooth papules, of a yellowish and pearly-gray color and of rather dense consistence. No signs of an inflammatory process exist. Each papule, taken by itself, may be readily recognized to be a tiny spot of sclerodermia. The eruption as a whole, however, so much simulates lichen planus in everything but its color, that the name of lichenoid sclerodermia guttata seems to be the most fitting designation for it. In its histological aspect, the various phases of evolution which we have described are characteristic of ordinary circumscribed sclerodermia, closely resembling the changes described by Unna in his card-like sclerodermia. The cause of the collagenous degeneration is problematic and has been observed in other cases, notably those of Johnston and Sherwell[16] Hazen,[4] Fischer,[8] and MacKee and Wise.[17] The presence

of syphilis in this patient is not regarded as having any bearing on the sclerodermatous lesions.

The occurrence of typical keloidal scarring, following the biopsies, is of some interest, taken in connection with the extensive burn of the chest wall which the patient suffered in early life, and which did not give rise to keloidal changes in the affected area.

Differential Diagnosis.

Try as we might, to escape the perplexing subject of differential diagnosis in relation to cases of this class, we cannot arbitrarily dismiss the matter with the bald statement that the affection in our patient represents an eruption of lichenoid sclerodermia guttata. There is no evading the circumstance that the lesions greatly resemble those of lichen planus in their morphology and hence demand a consideration of differential diagnosis, at least from the clinical standpoint. It is evident that the eruption possesses clinical features simulating both lichen planus sclerosus and circumscribed sclerodermia, as a perusal of Ormsby's[3] paper on the former, and Unna's[10] article on the latter dermatosis, will show. In describing lichen planus sclerosus, Ormsby states that, "The characteristic lesion is an irregular, often polygonal, flat-topped, white papule. The white color of the lesions is striking and has been compared with that of ivory and mother-of-pearl. At times a distinct yellowish tinge is noted. The papules, as a rule, are firm to the touch, neither elevated nor depressed, but slight elevation may be present. They bend with the skin and when grouped, may become wrinkled. As a rule, no areola is present, but at times a rosy or moderately pigmented zone surrounds the papule. They may be discrete or grouped and most cases present both types. When grouped to form plaques, the outline of the individual papules forming the plaques, can be determined. Each papule has on its shining, smooth surface from one to several black or dark, horny, comedo-like plugs, or minute, pitlike depressions, which show the former site of the horny plugs. These elements are situated at the pilo-sebacous or sweat-pore orifices and are most important from the viewpoint of diagnosis. The plaques vary in size up to several centimetres in diameter. They show on their surface the outlines of the primary papules, containing the horny plugs, or exhibit minute depressions; and the whole plaque shows the peculiar shining, white surface, characteristic of the primary lesions. A linear arrangement of the papules is at times noted, similar to that seen in ordinary lichen ruber planus. There is, as a rule, no clinical sign of inflammation. . . . The lesions, both papules and plaques, are persistent, but after a variable

time, either from treatment or spontaneously, they undergo resolution and leave a delicate, white, soft, smooth, atrophic area, of the size and shape of the original lesion, whether it be a discrete papule or a large plaque. The subjective sensations vary. Itching is the rule, but it is usually moderate in grade. A pulling or drawing sensation is described by some patients, while in others, no subjective sensations are present."

As to Unna's card-like sclerodermia, it consists, in its simplest form, of white, round or oval, pinhead to lentil sized, sharply circumscribed, barely elevated spots, which may be isolated or confluent; a description which serves equally well for sclerodermia guttata.

From these accounts we note that the points common to both diseases consist in the occurrence, in both, of whitish papules, firm to the touch, slightly elevated, discrete or grouped, sometimes forming plaques; in the latter event, the individual papules may be determined on close inspection. Here the resemblance ends. The affection in our patient being of at least five years' duration, we may safely assume that there is little likelihood of its ever acquiring the clinical features peculiar to lichen planus sclerosus. One spot, as stated, shows signs of superficial atrophy, but aside from that, none of the lesions presents any evidences of involution, follicular depressions, horny plugs, pigmented areolæ, cross-hatching of the surface, and so forth.

Lichen Sclerosus and Circumscribed Sclerodermia.

Petges[22] wrote an elaborate paper in which he submitted a series of parallel columns designed to show the contrasting differential points between lichen sclerosus and sclerodermia guttata. Bizzozero,[9] who made a careful analysis of this work, rather convincingly demonstrates the fact that nearly all the points considered as being characteristic of lichen sclerosus, may also play a part in the symptomatology of sclerodermia circumscripta. He takes up Petges' various items, *seriatim*, referring to the age of the patient, the presence or absence of pruritus, areas of predilection, morphology and density of the lesions, tendency toward confluence, peripheral halo and pigmented zone, punctiform depressions and horny plugs, wrinkling and cross-hatching of the surface, the co-existence of lichen planus papules on the skin and mucosæ, and the co-existence of sclerodermia in bands and plaques. Of these symptoms, the only one which he regards as truly characteristic is the cross-hatching and mosaic-like surface of lichen sclerosus,—a feature not present in sclerodermia guttata. Bizzozero concludes that, barring those cases which exhibit true lichen planus papules, the differential diagnosis must be based entirely upon the predominance of certain clinical and histological features, leading to a composite whole.

The border line between the two affections becomes less and less defined, as Bizzozero remarks, especially when we compare their respective elementary lesions. Hallopeau's[18] publications on lichen sclerosus contributed to the confusion. In 1898, Hallopeau[19] showed a case of lichen sclerosus, in which the elementary lesions were not, as in his previous cases, elevated and colored, but were flattened, colorless and glistening at the start. He believed that these elementary lesions were not the result of a regressive change of the ordinary papules of Wilson's lichen planus, but that they were primarily achromatic and sclerotic. He amplified the picture of lichen sclerosus by differentiating a secondary lichen sclerosus, derived from the papules of lichen planus, from a primary lichen sclerosus. Cases of primary lichen sclerosus have been reported by Darier, [20] Ormsby, [3] Fordyce,[1] C. A. Hoffmann[7] and others. These cases closely resemble those of circumscribed sclerodermia, in that the patches often result from a confluence of small, flat or slightly elevated, white, sclerotic spots. The features which Hallopeau regarded as being characteristic of lichen sclerosus lost their significance, since they also formed a part of Unna's card-like sclerodermia. Examples presenting the symptoms of both affections have been reported by Hallopeau himself, and by Darier,[20] Dubreuilh,[21] Petges.[22] Stowers[23] and others, and led Stowers to call his case, lichen morphœicus. Von Zumbusch's [24] case of so-called lichen albus and Csillag's [25] case of dermatitis lichenoides chronica are considered to be transitional types, linking lichen sclerosus with card-like sclerodermia.

Histopathological Comparisons. The chief microscopic changes in lichen sclerosus, as first described by Darier,[20] are as follows: Thickening of the horny layer, with prolongations into the follicles and sweat gland orifices; thinning of the Malpighian layer, with disappearance of interpapillary pegs and corresponding absence of papillæ; sclerosis of the papillary bodies and upper portion of the corium, where the connective tissue bundles are compact and poor in cellular elements, the capillaries showing dilatation here and compression there, the elastic fibres attentuated; an aggregation of grouped round cells, just beneath the sclerotic zone; a sparse collection of cells about the sweat glands and some of the blood vessels. These findings have been corroborated by subsequent writers; variations in the microscopic appearances are due to differences in the intensity of the process, in the age of the lesions, the regions from which biopsies were obtained, and so forth.

In card-like sclerodermia, the microscopic appearances resemble each other in practically all of the cases which have come under examina-

tion, in the advanced stages of the affection. These changes consist of: Hypertrophy of the horny layer; thinning of the Malpighian layer; the presence of clefts and lacunæ, varying in shape and size, between epidermis and corium; sclerosis of the papillæ and upper portion of the cutis, the connective tissue bundles being disposed in parallel, horizontal strata, between which are seen only the faintest lines of separation; a paucity of cellular elements and elastic fibres in the corium; a grouped infiltration, consisting chiefly of lymphoid and spindle cells, bordering the sclerotic margin, below.

Evidently, the histological changes in both affections bear many points of resemblance. In lichen sclerosus the subpapillary infiltrate gradually invades the deeper portion of the corium, leaving in its place a zone of sclerotic tissue, which grows correspondingly in width. A similar process takes place in card-like sclerodermia. After the initial stage of inflammatory œdema, involving the papillary and subpapillary regions, there follows the stage of collagenous hypertrophy, which, in turn, is succeeded by the sclerosis. The infiltration gradually disappears from the area originally involved, becoming localized at the periphery of the lesion, while the indistinctly separated bundles of connective tissue are replaced by a compact mass of collagen.

Comparing these microscopic changes with those seen in our own case of lichenoid sclerodermia, we find that the end stages of these different varieties of guttate sclerodermia are almost identical, the chief difference being in the absence of a zone of peripheral inflammatory cells in our case. If we go still further, and compare the minute structure of our lesions with those of other examples of lichenoid sclerodermia, namely, the cases of von Zumbusch, Csillag, Fischer, and Vignolo-Lutati,[26] we find analogous pathological processes occurring in all. As already pointed out, variations in the microscopic pictures are attributable to differences in the various stages of evolution, in the examined specimens.

Lichen Sclerosus and White-Spot Disease.

As to so-called white-spot disease, while it is conceded that all cases reported as such are presumably examples of guttate sclerodermia, it is not, in our opinion, true, that all cases of sclerodermia guttata are instances of white-spot disease, in the clinical sense. As stated, white-spot disease deserves its individuality and its name by virtue of its dazzling white color, if for no other reason, and its non-relation to lichen sclerosus. We are under the impression that while the yellowish and pearly-gray efflorescences of ordinary sclerodermia guttata are

relatively common, those of true white-spot disease are rarely encountered. Such, at least, has been our experience.

The whole question of the inter-relationship between white-spot disease, circumscribed scleroderma and lichen sclerosus, has been made the subject of a comprehensive study, recently, by Bizzozero.[9] This author's paper is both analytic and synthetic and in its scope includes practically all the relevant case reports, up to our own[17] publication on white-spot disease, in 1914. In the opinion of Bizzozero, the appellation "white-spot disease," as applied by Johnston and Sherwell to their first case, was unfortunate, in that it contributed to the confusion now prevailing in the classification of these affections. It required a great deal of investigation to arrive at the conclusion that nearly all cases of this type are to be grouped either under the head of card-like scleroderma (cases of Montgomery and Ormbsy,[23] Herxheimer,[6] Juliusberg,[27] Riecke,[5] Petges,[22] Dreuw,[30] Meirowsky,[29] MacKee and Wise[17]), or under the head of both card-like scleroderma and lichen sclerosus (cases of Hazen,[4] Fischer,[8] Vignolo-Lutati[26]). Bizzozero looks upon Hazen's case as one of card-like scleroderma, and mentions Hazen's efforts to differentiate it from morphœa guttata and lichen sclerosus, on the strength of his histological findings; these showed a disappearance of both collagen and elastin and an absence of sclerosis. Lichen sclerosus can be excluded on the following grounds: absence of subjective symptoms, of lichen planus papules, of mucous membrane lesions, of punctiform depressions, and of confluence of the lesions, forming plaques with cross-hatched surfaces. If it be assumed that the collagenous œdema in Hazen's case was so intense as to cause a wide-spread separation of the connective tissue bundles and a consequent absence of sclerotic changes (at least at the time when the tissue was removed for microscopic study), the probability of its being an anomalous example of card-like scleroderma may be accepted (Bizzozero). Aside from this anomaly, it is noteworthy that the inflammatory process is similar to that seen in scleroderma guttata; the wall of infiltrating cells surrounding the degenerated area in the corium points to the inflammatory process beginning in the upper layers of the derma, and gradually working its way downward, to the deeper structures.

Juliusberg,[27] Dreuw, and Bizzozero hold that the name white-spot disease should be applied to Westberg's[33] case alone, on the ground that card-like scleroderma covers all the cases in which the question of classification comes under consideration. In the opinion of Dreuw, we should not be deterred from classifying many of the cases reported as white-spot disease under the head of circumscribed scleroderma, merely be-

cause of minor differences in the appearance of the lesions, as affected by their morphology, color, presence or absence of a violaceous ring, degree of density, etc., as long as they retain the chief characteristics of Unna's card-like sclerodermia.

Not all investigators agree with this viewpoint. Kretzmer,[31] for example, believes that there are not sufficient grounds for the assumption that card-like sclerodermia is a variety of sclerodermia circumscripta, as Unna[10] maintains. His contention is based upon the fact that the histological changes in card-like sclerodermia show considerable differences, when compared with those seen in other types of circumscribed sclerodermia, such as morphœa and keloid-like sclerodermia. Kretzmer is inclined to separate the card-like variety from the circumscribed variety, and to group the former together with the cases described as white-spot disease. Darier voiced a similar opinion, giving the following reasons: while it is true that in card-like sclerodermia we find a sclerosis of the papillary bodies and the upper portion of the corium, this sclerosis takes place in the midst of an œdematous tissue, the sclerotic zone is separated from the healthy portion by aggregations of small round cells, there is a diminution of elastic tissue and a marked hyperkeratosis is present—all factors foreign to sclerodermia proper. Meirowsky,[29] however, maintains that these divergent findings are not sufficiently constant to justify the separation of the two types, and that if the various histological changes are viewed in the light of a composite whole, the contentions of Kretzmer and Darier may be overcome.

Bizzozero[9] points out that the sclerosis of the connective tissue or hypertrophy of the collagen is common to all varieties under discussion. The sclerotic process in sclerodermia is the result of a chronic inflammation, manifested by an infiltration of young connective tissue cells and lymph cells, chiefly about the blood vessels and glands. Darier himself records a case of beginning generalized and patchy sclerodermia, in which he found a subcutaneous, chiefly perivascular inflammation, with new formation of connective tissue and absence of elastin. The only factor missing here, and present in card-like sclerodermia, is the inflammatory process beginning in the papillary bodies, gradually extending into the deeper layers of the corium, and leaving behind it a zone of collagenous hypertrophy. This stage, however, is followed by the stage of sclerosis, in which the connective tissue becomes subject to a homogeneous alteration (Darier): the papillary bodies flatten and disappear, the epidermis often atrophies and the horny layer becomes thickened. These changes correspond to those of card-like sclerodermia.

The resemblances presented by the two varieties are therefore mani-

fest in every particular, with the exception of the elastic tissue findings. The elastin may be increased or decreased; it is subject to variations which may depend upon the age of the lesion, or, as Unna believes, the elastic tissue may atrophy as a result of mechanical influences, finally leading to its disappearance.

Another evidence of the relationship which exists between the two varieties of the disease is shown by those cases in which both types obtained in the same patient. Such examples were reported by Montgomery and Ormsby, Petges, Herxheimer, and Meirowsky. These cases support the contention that card-like sclerodermia is merely a variety of sclerodermia proper.

Lichenoid Sclerodermia Guttata.

Under the caption of lichenoid sclerodermia guttata, two cases appearing in the literature deserve especial mention; one reported by Fischer, under the title, "A Case of Circumscribed Sclerodermia Resembling Lichen Sclerosus of Hallopeau," the other reported by Vignolo-Lutati.

Fischer's patient was a twelve year old girl, afflicted with tuberculosis of the elbow joint and genital gonorrhœa. The cutaneous lesions had been present for one year and were situated on the abdomen, neck, back, hips and legs. They occurred in groups, some of which showed a confluence of the primary papular elements. Fischer describes three clinical stages; the first stage was represented by a group of four lesions, said to be eight days old, situated near the umbilicus, associated with mild pruritus, the lesions closely resembling those of lichen planus; these were slightly elevated and had a narrow, reddish border; the surface was smooth and glistening and there was slight delling, but scaling was absent. They differed from the papules of lichen planus in that their color was a bluish milk-white. In the second stage, the spots were several weeks old and larger than those described. They were depressed in the centre and surrounded by a brown border. Inflammatory signs were absent; the color was milk-white. Some of the papules presented follicular plugs and horny masses. A drop of serum would exude when a lesion was punctured with a needle. A tiny scale could be removed from some of the spots, leaving a white surface underneath. In the third stage, the lesions presented a wrinkled surface and the epithelium was studded with a few horny processes. The individual lesions were much larger than those of the earlier stages; they had depressed centres and bore a detachable scale. This stage exhibited the atrophic phase of the involuting papules. After persisting for a variable period, the spots became depresed in the centre, leaving a flattened, depressed, atrophic scar, with a cross-hatched appearance of the surface and a few follicular depressions.

Histologically, the subpapillary portion of the corium presented an inflammatory process, perivascular and interstitial in type. The epithelial appendages were affected secondarily. The most notable features were the fibro blastic proliferation and the highly œdematous state of the connective tissue, with destruction of the elastica and disappearance of the pigment. This was followed by collagenous degeneration and vesicle formation; the elastic fibres in the papillary bodies remained intact for a longer period, and presented evi-

dences of mechanical pressure, exerted upon the papillæ. The color of the patches was presumably due, partly to the peculiar changes in the connective tissue, partly to the loss of pigment.

Fischer points out that this case bears a strong resemblance to the lichen albus of von Zumbusch clinically, but that histologically, the changes are analogous to those of Unna's card-like sclerodermia.

In Vignolo-Lutati's case, a man of nervous temperament, there were present, on the upper portion of the back, a number of discrete papular lesions, varying in size from that of a lentil to a pea. These papules were polygonal, glistening, milk-white in color, and were surrounded by a reddish-blue or brown halo. Some of them exhibited punctiform depressions and comedo-like plugs. In addition to the discrete lesions, there were a few patches formed by the confluence of elementary papules; these were porcelain-white in color, had slightly elevated edges and the surface was parchment-like, studded with punctiform depressions. A few were surrounded by a bluish or brown ring. Some of the plaques presented signs of superficial atrophy.

Histology. A piece of skin was removed, including a segment of normal tissue, a bluish zone, a slightly elevated, narrow edge, and a portion of the depressed central area of one of the lesions.

The epidermis was attenuated over the depressed centre of the lesion, somewhat thickened at its periphery. In the central, depressed portion, and at the edges of the lesion, the corneous layer was irregularly thickened, homogeneous in appearance, and without a trace of nuclei, becoming normal as it approached the healthy integument. In the depressed portion, the stratum granulosum was developed irregularly, the Malpighian layer was diminished, rete pegs were absent; the basal layer consisted of somewhat flattened cells, in which pigment was very meagre, or entirely absent. In the elevated portion, however, the granular layer was well developed, the Malpighian network being acanthotic, with still well formed pegs, which slanted toward the peripheral, normal zone. There were traces of œdema in the cells of the deeper layers. Mitoses were absent.

Corresponding to the changes in the epidermis, the papillary bodies were flattened in the depressed portion of the lesion, while they slanted over toward the normal peripheral zone, in the raised edge; in the latter region a few lacunæ were seen, lying between epidermis and corium. The papillary portion of the corium was poor in blood vessels, the few remaining vessels being narrowed and apparently drawn out. Here and there, a few spindle cells were seen in the upper portion of the derma, isolated and grouped, and lying among the dense, thickened, compact, homogeneous, but well-stained bundles of connective tissue. The elastic tissue was absent, with the exception of a few isolated fibrillæ, lying between the parallel strands of compact connective tissue bundles. Toward the raised edge, and partly also in the normal area, the papillary and subpapillary vessels of the derma were dilated, some of them filled with blood cells. Here and there, in this zone, there were infiltrates, consisting of mononucleated cells, with large, well-stained nuclei. The infiltrates were most pronounced in the papillary bodies, more meagre in the subpapillary portion, and the cells were disposed in groups and rows, around the vessels, follicles and sebaceous glands. Where the infiltrates were more marked, the connective tissue bundles were spread asunder, while the elastic tissue was reduced in amount. The deeper layers of the derma appeared to be normal, both in the depressed central area, as well as in the peripheral portion of the lesion.

While these two examples present several clinical features not present in our case, they nevertheless exhibit lesions closely resembling lichen

planus papules, a circumstance which permits placing them, together with our case, under the head of lichenoid scleroderma guttata. In their minute structure, each of these three cases depicts a pathological process common to all forms of circumscribed scleroderma, with certain variations which may be attributed to differences in the age of the lesions, the region of the body from which they were removed, and so forth. They are differentiated from Unna's type, chiefly on account of differences in the morphology of their elementary lesions, which, instead of being small, white, non-elevated spots as in card-like scleroderma, they are rounded or polygonal, hard, white, glistening papules, greatly resembling those of lichen planus.

Beside the cases of Vignolo-Lutati and Fischer, the literature contains two other examples of the lichenoid type of the disease, namely those of von Zumbusch and Csillag. In these, however, the resemblance of the lesions to lichen planus papules is much less pronounced than in those above described.

Summary.

The various types of eruption considered in the foregoing differential study may be grouped under the following heads: 1, primary lichen sclerosus, possessing flat, white, glistening spots, some of them slightly elevated, and resembling circumscribed scleroderma; 2, secondary lichen sclerosus, possessing the elementary lesions of lichen planus of the Wilson type; 3, the card-like scleroderma of Unna, or morphœa guttata; 4, the lichenoid form of scleroderma guttata. The case forming the subject of this report comes under the last mentioned group.

In its clinical features, the lesions in our patient's eruption differ from those of the other groups, chiefly in the simplicity and uniformity of its papular elements, and in the absence of secondary changes manifested in them. The question of the presence or absence of a violaceous border, a pigmented halo, punctiform depressions or comedo-like plugs, cross-hatching of the surface of the lesions, and so forth, does not obtrude itself here, as it so frequently does in the consideration of most cases included in this group of dermatoses. We are dealing with a frank scleroderma, occurring in the form of numerous discrete and grouped papules, hard to the touch, glistening, pearly-gray in color, and showing clinical resemblances to lichen planus. The sclerotic process, as seen under the microscope, involves not only the papules themselves, but also the clinically normal skin lying between the papules, where the latter are grouped. This interpapulary portion of the skin is apparently retracted or depressed below the level of the normal integument, thus leaving the surface of the papules level with the niveau. The

initial manifestation of each individual lesion seems to be a primary achromatic and sclerotic papule.

The name sclerodermia guttata falls short of describing this dermatosis, failing, as it does, to suggest its resemblance to lichen planus, and giving no hint of its aberrant clinical features, when compared to ordinary circumscribed sclerodermia. The most appropriate designation for it, therefore, seems to be one which has already been given to related types of eruption, namely, lichenoid circumscribed sclerodermia.

In conclusion, we extend our thanks to Dr. Goldenberg for his permission to study and report our case; and to Dr. MacKee for his kindness in furnishing the accompanying illustrations and for his valuable suggestions bearing on our case report.

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PLATE VI.—To Illustrate Article on White Spot Disease, by FRED WISE, M.D., and I. ROSEN, M.D.

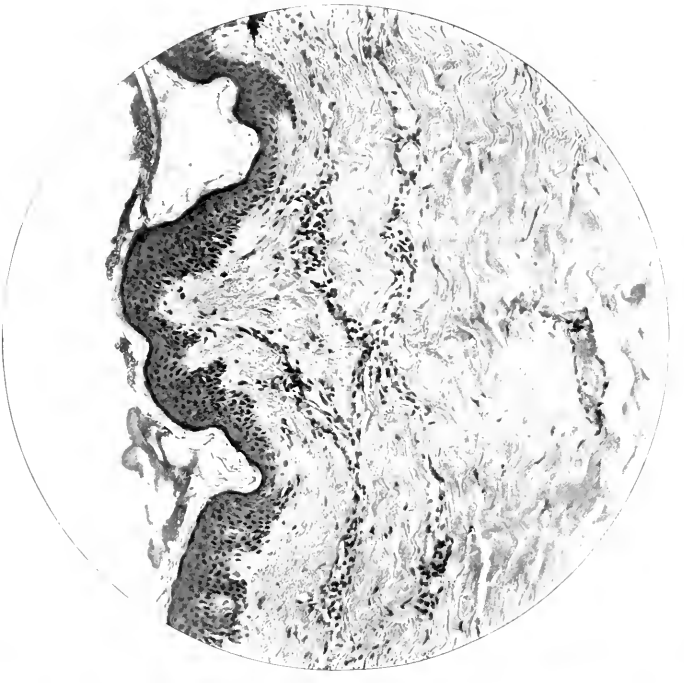

FIG. 2.
Zeiss, obj. S mm., co. oc. 4. Early stage—congestion and edema of derma. Central elevation is a papule.

FIG. 1.
Showing discrete and coalesced papules on chest.

PLATE VII.—To Illustrate Article on White Spot Disease, by FRED WISE, M.D., and I. ROSEN, M.D.

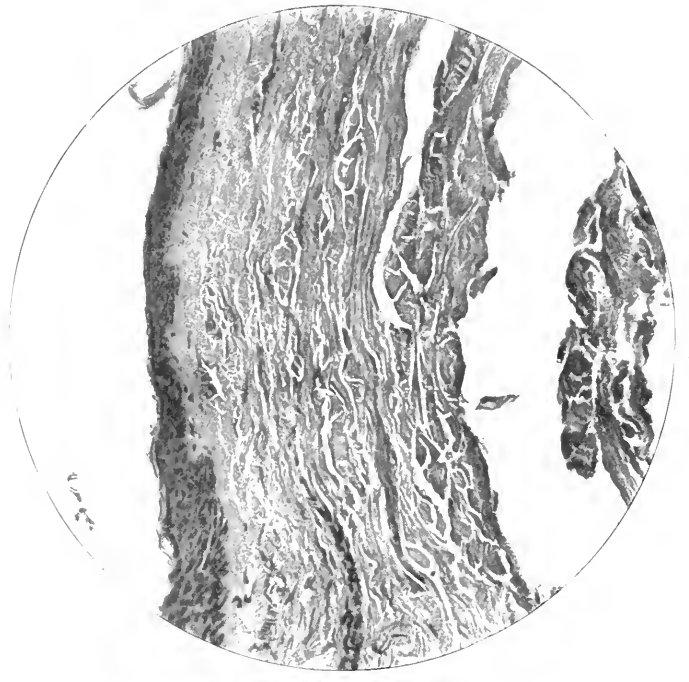

FIG. 4.

Zeiss, obj. 8 mm., co. oc. 4. Late stage—showing atrophy and sclerosis.

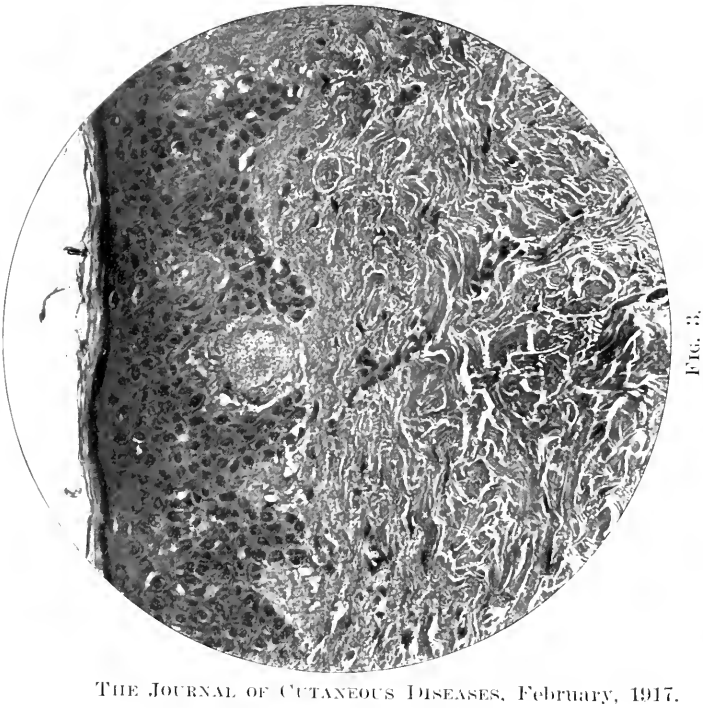

FIG. 3.

Zeiss, obj. 4 mm., co. oc. 4. Intermediary stage—showing degeneration in papilla.

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DISCUSSION.

DR. PUSEY said that since his attention had been called to nævus anæmicus he had been struck by the fact that there was another condition which should be included with white-spot disease. He had in the last year and a half seen several cases in which white spots on the upper part of the front of the chest occurred, which presented the exact appearance of some of the cases of white-spot disease which he had seen. He was convinced from their history and appearance that the white spots in these cases were small nævi anæmici. He did not mean that they were not cases of scleroderma and lichen planus which produced so-called white-spot disease, but he did wish to call attention to the fact that small anæmic nævi not infrequently produced the same picture of white spots that was seen in other cases of so-called white-spot disease.

DR. HARTZELL thought the term "white spot disease" should be abandoned; since it was generally agreed that the affection was scleroderma, why not call it so? As to nævus anæmicus, he had seen an example that morning, and while the spots were white, they were not at all like the so-called "white spot disease."

DR. WHITE said he would like to ask Dr. Pusey if he had made any microscopic examination of his cases. The speaker said he had seen cases like this, which he found to be benign cystic epithelioma.

DR. RAVOGLI said he had occasion to see a case like that described by Dr. Pusey. It was in a young woman who had undergone a very severe case of syphilis, who showed agminated, brilliant, whitish spots on the lower anterior

region of the neck, going down to the chest. It seemed nothing else than lesions of the connective tissues, which had been infiltrated and had undergone a kind of atrophic condition, forming as a consequence these peculiar whitish spots. The Wassermann reaction had been negative for a long time and the eruption could not be considered as an evidence of syphilis, but rather as a vasomotor affection. The speaker thought that Dr. Hartzell was perfectly right that this term, white-spot disease, had no meaning whatever. They must either refer the white spot to morphœa, to scleroderma or to the lichen planus sclerosus, and in this way the term white-spot disease would be entirely wiped out of the nomenclature. It either would be morphœa or circumscribed scleroderma, the result of injuries to the tissues in consequence of infiltration, lichen planus, or even the result of psoriasis. In one of his cases atrophic, whitish spots on the lumbar region had been the result of persistent patches of psoriasis.

Dr. Ormsby said he was interested to hear the paper of Drs. Wise and Rosen, particularly for the reason that it confirmed the findings Dr. Montgomery and he had come to, some years ago. The speaker further said that all of these cases fell into two groups, and that these groups were well defined, both clinically and histologically. He said it had been the intention of Dr. Montgomery and himself to emphasize the fact in their original paper that there was no such thing as white-spot disease; but, unfortunately, the title of the paper as presented rather emphasized the term "white spot" than the reverse. Their conclusions at that time were that all of these cases were either localized scleroderma or lichen planus atrophicus et sclerosus of Hallopeau.

The speaker further said that there was no reason why the term "white spot" should be continued, as there was really no such entity as white-spot disease.

Dr. MacKee said that the case was surely one of scleroderma. Histologically, it was interesting to note that the alterations extended through the entire section and were not limited to the papule. The papule, in fact, presented a more normal histological appearance than did the interpapular tissue. The papule appeared to be due, as Dr. Wise had said, to a degeneration and sclerosis, which progressed more rapidly in some places than in others. Later in the evolution the papules disappeared, leaving a diffuse sclerosis. This could be observed both clinically and histologically.

The speaker was opposed to the retention of the term white-spot disease, because it was too confusing. White lesions were observed in lichen planus sclerosus, in scleroderma, in nævus anæmicus and several other conditions. The term was originally employed by Westberg, Johnston and Sherwell, Hazen, and Ormsby to designate white lesions which were difficult to place nosologically, although in some of these cases the evidence was in favor of scleroderma. Dr. Wise and the speaker, two or three years ago, reported a case of white-spot disease in which histological material was obtained from two lesions which were clinically identical. The histological pictures, however, were totally different. In one lesion there was considerable infiltration and degeneration, as found in the cases of Johnston and Sherwell, Hazen, etc. If the research had ended here, the speaker would have been in favor of an entity, as were the earlier observers. The material from the second lesion, however, showed a scleroderma. It was considered, as a result of the finding, that if the earlier cases had been studied at different times, a diagnosis of scleroderma would have been made. In the article by MacKee and Wise, the term white-spot disease was retained with the suggestion, however, that it be restricted to white lesions that belonged to the scleroderma group.

White lesions occurring in lichen planus were usually readily differentiated from those belonging to the scleroderma group. In the former there were likely to be some typical lichen planus papules and, histologically, there was the

typical microscopical picture of lichen planus. On the other hand, lichen planus sclerosus might pass through its stages of evolution and involution without suggesting, clinically, a lichen planus, and the histological findings would depend upon the time of development of the lesion. Fordyce, for instance, removed a white lesion from a patient who also had typical lesions of lichen planus. The specimen showed what appeared to be the sharply limited infiltration of lichen planus which, in this instance, was pushed down into or had invaded the deeper layers of the derma as a result of a sclerosis of the papillary body and upper part of the reticular layer. The epidermis was atrophic. One, on studying the specimens from this case, could readily imagine that at an earlier stage one would have encountered the epidermic and dermic alterations of lichen planus. One could also imagine that at a still later stage the infiltration would disappear, the sclerosis would extend to the lowermost limit of the reticular layer, and the histological picture would be that of scleroderma. One was, therefore, compelled to agree with our German colleagues, who declared that at times it was impossible to differentiate between lichen planus sclerosus and scleroderma.

It would seem that practically all, if not all, cases of white-spot disease could be placed in one of two groups—namely lichen planus and scleroderma. Occasionally and until we had better means of investigation, there would probably be a borderline case that would defy differentiation and would tend to correlate the two groups.

Dr. Wise said that practically everything of interest had already been said on the subject, still he adhered to the somewhat unimportant opinion that there was no reason to entirely eliminate so descriptive a term as white-spot disease. He had seen examples of circumscribed scleroderma in which the whiteness of the lesions was its most striking feature, the color differing greatly from the ordinary yellow of scleroderma. In reference to nævus anæmicus, he thought that there was little likelihood of confounding the two diseases. In that form of nævus, the affected area was ischæmic, but otherwise normal, while in scleroderma circumscripta, infiltration was an obvious clinical feature.

THE TREATMENT OF ACNE.*

By R. A. McDonnell, M.D., New Haven.

The search for specifics in medicine is fascinating, but infrequently crowned by success. When a specific really is discovered, there is no doubt about it. Everybody uses it, in preference to any other treatment. Several years ago, vaccination with the acne bacillus, or its products, was offered to the profession as a specific against acne. Time and experience, as well as reason, have demonstrated that not only is the present technique not specific, but that no future improvements in dosage or method of preparation can possibly make vaccination specific.

Where all the symptoms accompanying a given disease may reasonably be attributed to a certain organism, there is good ground for hope that vaccination with that organism, or its products, may so raise the resistance to that disease as to constitute a truly specific action. These premises are true of typhoid fever, for example, and a vaccine has been worked out which undoubtedly furnishes very great protection against that disease. Yet Dr. Strong, who headed the expedition which was sent to Serbia to stamp out the plague, reports that among the Servian soldiers and their Austrian and Bulgarian prisoners, all of whom had been recently vaccinated against typhoid, that disease was frequently encountered.

Personally, I think that vaccination has run riot, and that it is time to face the facts. Does furunculosis always yield to autogenous vaccines? Surely not in my hands. The boils keep coming, until I open every one, and keep the neighboring skin, and the patient's fingers, clean.

There is a vaccine for ringworm of the scalp. I wish it well, because, with my present resources, I find it quite difficult to cure the disease. But I am not, to say the least, sanguine of its success. My previous experiences with gonorrhœal vaccine, and with tuberculin, have made me skeptical. We shall soon have a vaccine for impetigo, if we don't look out.

In acne, we have a disease of adolescence and middle life, characterized by an eruption, chiefly on the face and back, of comedones, small, hard papules, pustules, and, in some cases, abscesses of considerable size. Accompanying the eruption, there will be found, if careful enquiry is made, one or more of the following symptoms, in over eighty per cent. of the cases: constipation, abdominal gas, headaches, palpitation, dizzi-

* Read before the 40th Annual Meeting of the American Dermatological Association, Washington, D. C., May 8 to 10, 1916.

ness. These are classical symptoms of intestinal fermentation, and I have placed them in the order of their frequency in my practice. Some patients declare themselves absolutely free from these symptoms, and assert that, save for the eruption, they are absolutely well. Such are considered poor observers, and treated like the rest.

In acne, as could reasonably be expected, the lesions contain a variety of germs. At the beginning, the sebaceous glands are wide open and the soil is favorable. The acne bacillus, staphylococcus, streptococcus and occasional other organisms have been demonstrated. These, it seems to me, are accidental, and not an essential part of the disease.

The real cause of acne, I am convinced, is intestinal fermentation, though counterfeit acne may be produced by the administration of certain drugs which are partially eliminated by the sebaceous glands, like iodides and bromides, and by the external use of others which seal up the sebacous glands, like tar.

Intestinal fermentation is the resultant of two factors: eating fermentable food, and inability to prevent such food from fermenting.

Regulation of the diet is, to my way of thinking, the most important step in the management of acne. Fermentable foods may, roughly, be said to include all starches and sweets. In practice, however, it is neither possible nor necessary to withdraw all starches from the diet. The following should never be eaten: breakfast cereals, potatoes, fresh bread, macaroni, apples, bananas and nuts. Everything sweet should be prohibited, including candy, preserves, cake, pie, ice cream, soda water.

At the first visit, when the patient's enthusiasm and willingness to deny himself are at the highest pitch, I limit his diet for two weeks to milk toast, soft boiled eggs, dry toast and soup. After that, the diet list may include soups, fish, meats, vegetables (except potatoes and beans), fruits (except bananas and apples), eggs, toast, salads, tea, coffee and milk.

The best excitant to the flow of pancreatic juice is gastric juice, and the best excitant of gastric juice is saliva. If digestion in the small intestine is to be improved, it is important to begin with the mouth. It is perfectly surprising to learn from orthodontists how many children have teeth incapable of meeting. These youngsters bolt their food, imperfectly, or not at all mixed with saliva, and the result is a foreign body in the stomach, with nothing but friction to excite the flow of gastric juice. The stomach, being a good strong muscle, hustles the foreign body into the intestine, without furnishing enough gastric juice to excite a sufficient flow of pancreatic juice. So it lies here and ferments.

At the beginning of treatment, then, it is highly desirable to have the

teeth overhauled by a competent man, and made capable of mastication. Next, the importance of chewing should be drilled into the patient.

Besides chewing the food thoroughly, which is the best way to produce a copious flow of saliva, other expedients may be used to the same end. Savory odors make the mouth water, and so do condiments and sauces.

There are some drugs which are capable, to a limited extent, of holding intestinal fermentation in check. To my mind, the best of these is ichthyol. A common prescription with me is, aloin, 0.10, ichthyol, 10.00, licorice powder, q. s., to be mixed and divided into thirty capsules, of which one is to be taken after each meal. Other drugs will readily suggest themselves.

A thing which has struck me very forcibly is the extreme care about eating which is necessary for the best results in acne while a student is at Yale, and the lack of consequences from indiscretions in eating when the same patient is on his vacation. Many of the young men go to camp in Maine or Canada, or to ranches, during the summer, and in such places they eat everything set before them, including flap-jacks, hot biscuit and soggy potatoes, with perfect impunity.

Manifestly, there is something about an active life in the open air which enables these boys to withstand the insults to their digestive apparatus. This leads to a consideration of what I believe to be next in importance in the treatment of acne, namely, sunlight, fresh air and exercise.

The highly interesting paper of Dr. Harvey P. Towle, on "Heliotherapy in Diseases of the Skin," is specific confirmation of a belief long held by medical men, as well as the laity. Not only is sunlight beneficial locally, in acne, but there appears undoubted virtue in it as an aid to digestion.

A recognized treatment of acne consists in peeling the epidermis by using sulphur, mercury, iodine, and similar drugs. This evacuates the sebaceous glands, wholesale. The same thing is accomplished, much better, in my opinion, by exposure to the direct rays of the sun. It is a good idea, before the exposure, to scrub the face with ethereal soap, so as to remove the protecting layer of oil from the skin. The time required to effect peeling varies with the season and the locality, from fifteen minutes to an hour or more.

After the skin has begun to peel, I have the patient wash it, every night, with alcohol or ethereal soap, and then apply calamine lotion, and a dusting powder over that. If there are deep-seated pustules, or abscesses, they are opened with a fine-pointed bistoury and their contents gently expressed.

A measure which has proved valuable in producing the desired drying up of excessive secretion of sebum is X-ray treatment. The dose administered must be well within the erythematous effect, and it should not be repeated inside of three weeks. I give a dose corresponding to two measures on the Hampson radiometer, which, with my machine, requires a distance from the target of the Coolidge tube of about seven inches, and an exposure of three minutes, using three and one-half milliamperes, and filtering the ray.

If anyone shall be so rash as to agree with the writer that the digestion is the main thing in acne, he will realize how menstruation, masturbation, cigarettes, anæmia, endometritis, and many other things can influence the eruption. Without painstaking investigation into the condition of the general health, no one can reasonably hope to cure a bad case of acne.

Where suppuration is marked, there is no doubt of the value of vaccination, as an adjunct to the rational treatment. Vaccination alone, indeed, may produce a temporary symptomatic cure; but the disease generally recurs unless the soil on which the pus-forming organisms grow is radically changed by controlling intestinal fermentation.

Conclusions.

There is no specific for acne. Vaccination is not specific, and cannot be made specific by any improvement in technique. Acne is due, primarily, to intestinal indigestion, the germs found in the lesions being accidental.

Two factors must be considered as causative: eating fermentable food, and inability to prevent such food from fermenting. Starches and sweets should be excluded from the diet. The teeth should be put in order. Anti-fermentative drugs do some good. Sunlight and fresh air help a great deal. Drying and peeling lotions help, locally. The X-ray works in much the same way.

Factors like menstruation, cigarette smoking and anæmia, through their influence upon digestion, may affect the course of the eruption.

Vaccination often controls the formation of pus in the lesions.

Discussion.

Dr. Ravogli said he wanted to congratulate the essayist for the important description of the treatment of acne, which affection occurred nearly every day in practice and when the patients improved it afforded a great deal of pleasure to them as well as to the physician. He had found that all practitioners relied probably too much on the use of vaccine. A great many cases of acne indurata had come under the speaker's attention, much more frequently than they did some years ago, when more attention had been given to the surgical treatment,

by opening the pustules and removing the pus and the degenerated substances of the sebaceous glands.

The speaker thought that the ideas of Dr. McDonnell were very good, concerning the condition of the stomach. He, too, had found that many of the patients were suffering with constipation and dyspepsia. He thought that probably constipation had more to do with it than the condition of the stomach. The constipation caused the sulphurated hydrogen to remain in the bowels, which gas, absorbed and carried into the circulation, would change, altering the condition of the haemoglobin and weakening the system; this causing alteration in the sebaceous secretion of the skin, which plugged the excretory ducts and then the staphylococci did the rest, producing pustules. There was no doubt, the speaker said, that the vaccine treatment was good, but he thought that without it, using only the surgical treatment, opening the pustules, drawing out the purulent substances and sterilizing the active lesions, improving the digestion and the nutrition, eliminating the constipation, we could do very much good in the treatment of this disease.

Dr. Wallhauser said that while he would agree that the internal causes of acne mentioned by Dr. McDonnell might act to influence certain cases, they should be considered as contributory. The main factor to be considered in the treatment was a local infection. During the past ten years he had gradually eliminated one remedy after another until the present time, when alcohol as a wash, applied with cotton and firm pressure four or five times a day, constituted the sole treatment for the majority of cases. The only addition employed was in the severe pustular types, in which the pustules were incised and expressed, at intervals of a few days. This plan, when carefully and persistently applied, had given rapid and satisfactory results.

Dr. Davis said his idea had been that the condition was in part due to not thoroughly mixing the starchy foods in the mouth with saliva. He said that the animals, the horse, cow, mule, chewed starchy foods more sensibly than the human animal. Locally the speaker preferred Lava soap, which "curetted" the tops of the lesions, and then, ordinary lotions afterward. He thought that teaching people to chew properly, so that the starches were converted in the mouth into glucose, and swallowed as glucose and not as starch, would meet with the best results.

Dr. Weiss said that he was grateful for the lucid and concise explanation of the reader and perfectly agreed that hygiene, diet, sunlight, etc., will contribute to the cure of the disease. The speaker said there was probably another aspect to acne than auto-intoxication and other shortcomings of the social and hygienic life. As they knew, he said, acne was a disease of puberty. Children and old people had no acne. At these ages the sebaceous glands were not performing their work to their highest pitch. Children's early life morbidity was prominently dermal. They then acquired the different exanthemata and infectious diseases like diphtheria, parotitis, whooping cough, etc. The predisposition to these ailments or the escape from them was not a mere accident or contingent on exposure only. The thyroid gland formed the first line defence against infectious diseases; its inadequacy, therefore, which was mostly inherited and in some cases acquired, will predispose them to infections.

In old age, retrogressive changes took place in every organ-system and naturally in the skin also. The pilo-sebaceous glands were actuated in a perverse manner, causing seborrhœic warts and other senile disturbances. It was well known that great changes took place in adolescence and puberty. At this age the thymus went out, as it were, and the gonads came in. With this effacement of one ductless gland, and the powerful active entrance of another, the sexual glands, the pilo-sebaceous system also underwent great changes, especially in the direction of over-secretion and vasomotor disturbances.

The speaker said in most of their cases of acne they found sub-thyroid conditions, such as cold feet and hands, erythema pernio, dry skin, brittle nails, changed character of the urine, fatigue, constipation, defective dental development,—all thyroid shortcomings. The speaker would emphasize the fact that in such cases of acne, where the sub-thyroid conditions were present, that thyroid substance would really perform a great service, and should be given if the patient showed such markings. In those cases it would serve a great purpose, in conjunction with the hygiene and surgery. As to the dosage, experience had shown that small doses, from ¼ to ½ grain, twice daily, were more effectual than the customary larger ones. Even with these dosages close supervision should be exerted.

Dr. Gilchrist said that the cases which came to them privately were very troublesome, especially getting rid of acne in young girls. The speaker said, in regard to the ætiology, that the Bacillus acnes was causal, with the streptococcus as a secondary agent. He had found the streptococcus and even the Streptococcus aureus. With reference to the X-ray, he said that during its first few years everybody got an X-ray apparatus, turned on the machine and treated all cases with the X-ray. More harm had been done during the first few years, than good. Reports had been made by dermatologists then about the results obtained. This had gone down to the proper level. When vaccine therapy came in, it was taken up by physicians all over the country, running it to death, and their cases were over-treated with the Bacillus acnes in every instance. That, the speaker said, had now also gone down to its proper level. The speaker stated what one wanted to do was to use one's judgment. Vaccines sometimes were very beneficial. They should raise the resisting power of the patient, by attending to other things the matter with him. Probable toxæmia produced by the Streptococcus albus might have had something to do with the causing of constipation in the line of bacterial infection. These had to be corrected. In constipation there should be careful diet. The cases should be carefully gone into and the whole picture, every detail, outlined. Under the stereoscopic magnifying glass they should remove every comedone. Then they could more easily get rid of the nodular form by the vaccine of Bacillus acnes.

When cases relapsed, the speaker said he found that one pretty heavy dose of the Bacillus acnes, or two, was sufficient to get the patient to go along for six or twelve months more, and then he went back to the bigger dose again. In using it for the first time at the Johns Hopkins Hospital, he started with one hundred million and then two hundred million and had the patients rest for twenty-four hours. This was given up to twenty-five hundred million. Another dose was administered in a week or ten days, and then the vaccine stopped. The speaker said there had been more reactions from small doses than large doses.

Dr. McDonnell said when he offered this paper he thought he was going to be convicted of heresy. It had seemed to be the universal opinion that the only satisfactory procedure was the injection of vaccine, and the speaker was very glad to find that only one man of the six or seven who took part in the discussion still thought this the only practical treatment.

SCLERODACTYLIA WITH CALCAREOUS CONCRETIONS: WITH REPORT OF A CASE.

By George Manghill Olson, M.D., Minneapolis.

Definitely formed cutaneous calculi, or calcareous concretions of the skin and underlying subcutaneous tissue, are of rather uncommon occurrence.

In 1911 Thibierge and Weissenbach[1] reported a case of scleroderma and sclerodactylia with calcareous concretions, and gave a summary of eight other cases that had been reported in the medical literature up to that time. Of these cases, the first was reported in Switzerland in 1878 by H. Weber,[2] who, however, considered the calcareous concretions as a form of gout. The remaining seven cases were reported from various countries of continental Europe.

In 1911, Scholefield and Weber[3] reported the first case in England, the patient, a woman of fifty years, having marked sclerodactylia with calcareous concretions.

In November, 1912, Davis[4] reported an additional case in England.

Case Report.

The patient, a young lady of twenty-seven years, married, was first seen by me on April 17th, 1916. She complained of circulatory disturbances of the hands and a marked hard infiltration of the fingers. At various times ulceration had occurred with the extrusion of calcareous concretions.

The condition had existed for ten years, beginning with numbness and poor circulation in the fingers and hands. Later the fingers became stiffened and hard masses, almost like fibromas, appeared in the tissues of the fingers, and near the olecranon. Some of the masses in the fingers had broken down and discharged hard, gritty, calcareous concretions.

An examination of the hands showed a very typical sclerodactylia, all the fingers appearing infiltrated and shiny. When exposed to the cold, the fingers appeared dead white, blue white or purple. The sclerodermatous infiltration involved especially the palmar surfaces of the first phalanges. On the palmar surface of the left thumb there was a circumscribed, hard nodule, and two large nodules near the left olecranon.

The patient had quite severe mitral disease and Dr. Dreisbach informed me that at one time compensation had been poor. In general, however, the patient had been in quite good physical condition.

The patient stated that at times the toes felt numb, but they showed no infiltration and are apparently normal.

The Calcareous Concretions.

The calcareous concretions in the above case varied in size from a pin head to a small pea. They were white in color, rather soft and

brittle, and evidently composed very largely of carbonates, as marked effervescence occurred on the addition of nitric acid. Urates and uric acid were absent, showing that the concretions were not gouty in nature.

The calcareous concretions in the cases reported have varied in size from a small pea to twenty centimetres in diameter. Chemically, they are composed chiefly of calcium carbonate, with some calcium phosphate. Urates and uric acid are always absent.

The calcareous concretions have been found mainly in scleroderma of the fingers, although they have also been found in scleroderma of other regions, as the elbow, neck, knee, hip, buttocks, etc.

Diagnosis.

In the diagnosis of scleroderma with calcareous concretions, we must consider, in addition to those diseases that resemble scleroderma, the conditions of the skin in which calcareous concretions are found.

Cutaneous calculi or calcareous concretions have been reported in the following conditions of the skin:

1. Tumors. Lipoma, fibroma, cystic adenoma of the sweat apparatus, epithelioma, epitheliome calcifié, epithelioma of Malherbe.
2. Affections of the Sebaceous Glands. Milium, especially milium of the scrotum, sebaceous cysts, sebaceous atheromata.
3. Chronic Inflammatory Conditions. This includes especially the caseous forms of tuberculosis.
4. Calcareous Granuloma. Darier. Peyri. Reynes.
5. Cysticercus Disease.
6. Calcification in Subcutaneous Veins.
7. Calcification in Subcutaneous Arteries.
8. Calcareous Metastases in the Skin. Jadassohn. Lime metastases or the metastatic calcification of Virchow consists in the resorption of lime salts from bones in the aged, and the deposit of these lime salts in the various normal tissues.
9. Fatty Tissue Calculus. Calcification of minute subcutaneous fat lobules in front of the tibiæ in elderly people. This constitutes the *Fettgewebssteine* of the Germans.
10. True Osteoma in Subcutaneous Tissue or Scars.
11. Gout.

Of the above mentioned conditions in which calcareous concretions may be found, none should cause very much difficulty in differentiating clinically from scleroderma or sclerodactylia, with the possible excep-

tion of tophaceous gout. And in gout the calcareous concretions contain uric acid and urates, that are absent in calcareous concretions of scleroderma.

Morvan's disease resembles sclerodactylia, but the syringomyelic dissociation is absent in sclerodactylia.

X-Ray Diagnosis. The calcareous concretions in scleroderma are very clearly shown in X-ray plates. Undoubtedly many patients with sclerodactylia have unsuspected calcareous concretions, the presence of which would be shown by the X-ray.

The Wassermann Reaction. Many patients with scleroderma have positive Wassermann reactions, and are apparently syphilitic in nature. My patient and also her husband showed an absolutely negative Wassermann, and neither had any history or symptoms of syphilis.

Treatment. The treatment is that of ordinary sclerodactylia. In the patient whose report is given in this paper, avoidance of chilling of the hands, massage and the administration of thyroid have apparently been of some value. The condition of the hands is better during warm weather, so that possibly a residence in a warmer climate would be beneficial. The calcareous concretions, if troublesome, may be removed by the knife.

Summary.

1. Sclerodactylia and scleroderma in rare instances are complicated by the presence of calcareous concretions or cutaneous calculi.

2. Diagnosis can be made before the extrusion of the calcareous concretions by the use of the X-ray.

3. The more general use of the X-ray in sclerodactylia would probably show that the presence of calcareous concretions in this condition is more common than is indicated by the very few cases that have been reported.

References.

[1] Thibierge and Weissenbach. *Ann. d. dermat. et d. syph.*, 1911, ii, p. 129.
[2] Weber. *Correspondenz-Blatt für Schweizer Aerzte*, 1878, p. 622.
[3] Scholefield and Weber. *Brit. Jour. Dermat.*, September, 1911.
[4] Davis. *Amer. Jour. Dermat. and Gen.-Urin. Dis.*, November, 1912.

CLINICAL REPORT.

A PIGMENTED STRIPE IN THE THUMB NAIL.

By Douglass W. Montgomery, M.D., San Franci-co.

The following is the description of a condition which I have never observed before and which I have never seen mentioned. It occurred in the person of a Jewish violinist, thirty-six years of age, who consulted me April 6th, 1915, on account of an eczema of the hand.

It was first noted by me after I had successfully treated the eczema by X-rays and had ascertained from him that he had acquired syphilis some years before. My first thought was that it was of recent occurrence, as I had just seen it, and the patient had never previously noticed it. I therefore had to consider whether it might result from syphilis, from eczema or from the application of the X-rays. I finally concluded that it was not caused by any of these, and that it likely was a most curious and interesting pigmented nævus, which had escaped the patient's notice.

As previously indicated, he consulted me on account of an eczema that had appeared on the web between the second and third digits and in the hollow of the left hand in February of the previous year. There were no other eczematous patches.

There was marked congestion of the general cutaneous surface, the skin of the face was seborrhœic and blotchy red, and there was considerable dandruff of the scalp. There was lichen albus over the abdomen, and over the tip of both olecrana, which over the olecrana later developed into frank seborrhœic eczema.

He had acquired syphilis in 1903, for which he had been to Arkansas Hot Springs several times and had received an infusion of salvarsan July 4th, 1914. A month previous to coming to me, a Wassermann had been taken and was found negative.

He had the digestive disturbances so frequently found in those who are seborrhœic, and he was afflicted with low frontal headaches, at times of terrific intensity. The renal function was normal. His diet was not one suitable to a man of his sedentary occupation and he took very little exercise.

The eczematous lesions were dull red with no accurate boundaries, scaly, and the interdigital patch was weeping at the time he consulted me. There were very few subjective symptoms but the mere presence of the trouble in the palms was a torment, as skin lesions often are to those who have acquired syphilis and who imagine that all such trouble must arise from this infection.

Under topical applications, dietetic régime, exercises and internal treatment, the eczema improved vastly, but from time to time there would appear an erythematous blush, or a papular or even a vesicular eruption. Finally X-rays were resorted to. There were in all three exposures, of fifteen minutes each, with a medium tube, placed at four inches distance. These were given on Oct. 4, Oct. 19, and Nov. 4, 1915. On Dec. 14, over a month after the last X-ray exposure, the patient came in with redness and a burning sensation over the palmar surface of the ball of the left thumb, which comported itself in every way as an X-ray burn of moderate intensity. The interesting things about it were, the extreme tardiness of its appearance, and its greater intensity over the ball of the thumb. This latter feature was accounted for by the fact that the

patient's thumb was not bound back while administering the rays, and it, therefore, naturally closed in on the palm during the treatment. I remember several times myself putting his thumb back in position against the surface on which the hand was resting. I was not then aware of the simple device of a cardboard splint, suggested by Schäffer, to keep the palm flat.

On Dec. 18, four days later, I first noticed a discolored band, three mm. broad, running up the centre of the thumb nail from the base to the free edge. The lateral edges of this band were clearly marked and absolutely rectilinear. The band could be seen through the nail fold, where it looked bluish, then it crossed the lunula, then the body of the nail, where it was bluish brown, and ended at the free edge. It could be distinguished by looking at the cut surface of the free edge just as well as by looking at the upper surface, and the pigment at the free edge could be seen to lie in the whole thickness of the nail, but did not seem to exist in the nail bed below it. The surface of the nail was a little rough and chipped and a little fluted, and xylol poured upon the surface, filling up these inequalities, rendered the pigmented band more distinct.

The patient said that he lost this nail, about two years before, as a consequence of some swelling of the thumb, the nature of which he did not know.

My first conjecture was that the discoloration was due to some curious action of the X-rays. This was disproven by the fact that the pigment was in the substance of the nail and involved its whole length, and also evidently its whole thickness, and therefore must have been produced in the nail groove at the time of the nail formation, which for the older portions of the nail was six months before. The X-raying was done only one or two months before, so, therefore, it was impossible for the X-rays to have caused the pigment in the older portions of the nail.

This pigmented stripe did not look like the result of either syphilis or the trouble, before mentioned, in which the nail was shed, or the eczema, as all of these were inflammatory, and would cause other trophic disturbances of the nail, such as riffles. The process would also vary with the varying intensity of an inflammatory lesion, while the lesion in question was eminently steady in its production of pigment.

The most reasonable explanation for the phenomenon seems to be that it was the result of a pigmented nævus situated in the nail groove, and producing pigment in the newly formed nail, that grew out with the natural growth of the nail. That it was unobserved by the patient till I drew his attention to it, is nothing strange. People untrained in watching natural phenomena are very unobservant in such matters.

SOCIETY TRANSACTIONS.

CLINICAL SESSION OF THE AMERICAN DERMATOLOGICAL ASSOCIATION, HELD AT THE FREEDMEN'S HOSPITAL, WASHINGTON, MAY 7, 1916. CASES SHOWN AT THE CLINIC ON VISCERAL SYPHILIS.

CASE 1. (Presented by Dr. L. T. Wright.) Negro male, aged 7 years. The family history was unimportant: there had been no miscarriages, and no history of syphilis in the parents. The child had had varicella, measles and whooping cough. One year ago he had a suppurating inguinal adenitis, following an abrasion of the leg. Six days before admission to the hospital he had a "fit," which, according to the mother's description, was convulsive in character, the attack lasting about five minutes, and confined to the right side. Three hours before admission he had a similar attack, complicated by aphasia. No aura was ever present.

Physical examination while in the hospital showed that the forehead was bulging. The irruption of the upper incisor teeth was defective. There was a spastic paralysis of the left arm and leg. Reflexes on the left side were exaggerated. The child could not speak. The blood and urine were negative, but the Wassermann was strongly positive. The spinal fluid showed a cell count of ten, while the Nonne and butyric acid tests for globulin were strongly positive.

CASE 2. (Presented by Dr. L. T. Wright.) Negro male, aged 5 years. No family or past history could be obtained. The skin of the face showed papules of a dusky red color that were suggestive of syphilis. The cornea of each eye was hazy and there was central injection of the ocular vessels. There was marked photophobia. The blood Wassermann was strongly positive, but the spinal fluid reaction was negative. The ophthalmologist considered the case one of syphilitic kerato-iritis.

CASE 3. The patient was a negro male, aged 23 years, who entered the hospital for markedly enlarged glands in the left anterior triangle of the neck. The Wassermann reaction was strongly positive and the glands speedily diminished in size under mercurial treatment, but not until several had broken down. The clinical picture was that of tuberculous adenitis. This type of glandular syphilis is rather common in the negro.

CASE 4. (Presented by Dr. E. A. Robinson.) A negro male, aged 46 years, entered the hospital because of shortness of breath, and pain in the right shoulder that radiated down the arm. The family history was unimportant. The patient had been a hard worker all of his life. He denied any venereal infection. His illness began about two months before admission to the hospital, with pain in the right side of the chest, which grew worse and extended to his shoulder and arm. Physical examination showed a well nourished man. His right pupil was markedly contracted and sluggish in response to light. In the right supraclavicular space was a mass that had an expansile pulsation. There was here a systolic bruit but no thrill. Percussion showed the heart to be enlarged and auscultation revealed a systolic murmur at the apex, transmitted to the axilla. X-ray examination showed an aneurysm of the ascending and transverse arch of the aorta with a probable involvement of the innominate. No physical signs could be demonstrated in the chest. The Wassermann was strongly positive. This was a case showing chiefly symptoms rather than physical signs.

Case 5. (Presented by Dr. E. A. Robinson.) A negro male, aged 48 years, entered the hospital because of shortness of breath. He denied any history of syphilis but admitted gonorrhœal infection. His trouble began about five months ago with cough and shortness of breath. On the least exertion he had severe attacks of shortness of breath, as though the bronchi were closed. Physical examination showed a systolic thrill on a level with the base of the heart. No dullness could be mapped out, but the X-ray showed an aneurysm of the ascending and transverse portions of the aorta. The Wassermann was strongly positive.

Case 6. A negro male, aged 56 years, entered the hospital because of symptoms arising from an enlarged prostate. A pulse pressure of nearly 100 attracted the attention of the interne, who then found a slight diastolic shock on the right side of the sternum. X-ray examination revealed an aneurysm of the descending arch of the aorta. The Wassermann was strongly positive. This case showed no symptoms, and but few of the physical signs of aneurysm and might easily have been overlooked.

Case 7. (Private patient presented by Dr. L. S. Ecker.) White, female, aged 36 years. She consulted Dr. Ecker because of shortness of breath; physical examination showed a well marked case of aortic insufficiency and of aortitis. The Corrigan water hammer pulse, the shaking of the head, and the pulse in the nails could easily be distinguished. The Wassermann was strongly positive and there was a history of specific infection, but none of rheumatism.

Case 8. Negro girl, aged 23 years, shown for a gumma of the frontal bone and an iritis. There had also been a prepatellar bursitis that may have been syphilitic in character.

Case 9. Negro male, aged 34 years, dental student, shown for diagnosis. The illness had begun ten days before, with a generalized papular eruption that had itched intensely. The papules were grouped but discrete, and were round and semiglobular, quite characteristic of syphilis. However, there was no trace of chancre, only one or two glands were enlarged and the Wassermann was absolutely negative. On presentation the character of the eruption had changed somewhat, for the papules were arranged in lines, somewhat like lichen planus. Some of the papules were spreading peripherally and clearing in the centre, as pityriasis rosea might do. There was a group of papules on the chin, strongly suggestive of syphilis. A biopsy later revealed that the condition was neither syphilis nor lichen planus, but probably pityriasis rosea.

PHILADELPHIA DERMATOLOGICAL SOCIETY.

Regular meeting, Oct. 16, 1916.

Frank Crozer Knowles, M.D., *Chairman.*

FIBROSARCOMA. Presented by Dr. Pfahler.

M. W., male, white, aged 9 years. About six months ago, a blue mark was noticed on the left arm, at the outer side of the elbow. The patient had accompanying pains in the fingers. The local doctor did not think it of any importance, and advised applications of hot water. Later, the patient consulted three dermatologists in New York, one of whom gave the diagnosis of tuberculosis; another of sarcoma, and a third of syphilis. The patient was admitted

to a hospital, when the Wassermann was found to be negative: the tuberculin test was also negative. A tumor the size of a walnut had developed and was removed on May 2nd, 1916, the following being the pathological report:

The portions of the tumor removed May 2nd, 1916, reveal a tumor of the connective tissue type. The cells are small, spindle shaped: the nuclei are round, irregular, fairly rich in chromatin and show very few mitotic figures. The cells are not compactly arranged, the amount of intercellular substance being considerable: in places there are large strands of firm, fibrous tissue. The tumor is of the infiltrating variety. Diagnosis: fibrosarcoma.

The patient was kept in the hospital for five weeks. The joints became swollen and numerous elevated, bluish nodules began to appear all over the body, especially over the anterior portion of the trunk. One of these nodules was removed on August 31st, 1916, the pathological findings being as follows:

The sections of the tumor removed on August 31st, 1916, show, in certain areas, the identical picture described above. In other portions, there is considerable necrosis, and scattered here and there, are structures that resemble miliary tubercles very closely. These structures consist of small central areas of coagulation necrosis, with giant cells in the immediate vicinity. Indeed, there are a considerable number of giant cells throughout the specimen.

Practically no distinction can be made between the tumor and the inflammatory tissues. The superficial portions show extensive ulceration with necrosis and numerous bacterial colonies.

The patient had been given numerous X-ray treatments by the speaker since that time, with the result that the lesions had decreased fully two-thirds in size—in fact, there was very little elevation, and only dark pigmented areas remained. Several lesions over the left eye, a week prior to the patient's presentation before this Society, were pea to bean size, had considerable elevation and were distinctly purplish. After one X-ray exposure, they presented only a faint purplish color.

A differential blood count had not been made. There was no glandular involvement and the scars at the site of the operations had become keloidal in character.

CASE FOR DIAGNOSIS. Presented by DR. STELWAGON.

Male, white, aged 17 years. Native of Porto Rico. Three years ago, the patient noticed a dryness and brittleness of the nails, with considerable scaling. This had continued, leaving in addition deep furrows. A year and a half ago, the patient noticed an eruption on the scalp. He gave no definite history of any individual lesions, except that they had never been pustular. Upon presentation, the greater part of the occipto-frontal region was covered with depressed scars of considerable size. There was almost complete atrophy of the hair follicles, with not enough hair remaining around the borders to cover the scars. One year ago, the patient noticed, on the left side of the face and in front of the ear, an inflammatory area which continued for about six months, leaving considerable pigmentation with atrophy of the hair follicle. There had never been any pain nor itching. The speaker thought that the diagnosis lay between folliculitis decalvans, lupus erythematosus and tinea favosa, with an entirely different condition on the nails.

DISCUSSION.

DR. HARTZELL was inclined to look upon it as a case of lupus erythematosus.

DR. SCHAMBERG said that he had seen this same condition several times and while his first diagnosis was that of lupus erythematosus, he felt that it was an entirely different disease—a complete entity that should be given a distinctive title.

CASE FOR DIAGNOSIS. Presented by Dr. Schamberg.

Male, white, aged 44 years. The patient stated that on the 5th of September, 1916, he was on a gunning trip, after having spent the entire summer in the mountains, taking an open air rest-cure. He noticed on that date, a slight eruption on the body which he assumed to be urticarial. (This man had done considerable social service work, was very intelligent, and gave a remarkably clear history.) A generalized papular eruption later developed and was diagnosed as lichen planus. He came under the care of the speaker the first of October and the entire body was covered with a uniformly distributed papulo-erythematous eruption. Here and there were scattered small vesicles which would remain for only a day or two and then be absorbed. The patient was extremely nervous, very weak and apprehensive, and had been taking rather large doses of veronal for sleeplessness, before this vesicular eruption appeared. Thirty-six hours before the time of presentation, he developed bullæ in the groin, and on presentation there were probably twenty bullæ on each of the genito-crural folds, varying in size from one-half to one inch. Some had broken of their own accord, and on account of the situation all were very painful. Before this bullous eruption appeared, the diagnosis of vesicular eczema was considered, but whether the case will develop into a dermatitis herpetiformis or a true pemphigus was problematical.

CASE FOR DIAGNOSIS. Presented by Dr. Hartzell.

Female, white, aged 52 years. Over the lower legs, anteriorly and posteriorly, were numerous lesions averaging in size from that of a pea to that of a twenty-five cent piece. They were brilliant red in color, fairly sharply defined and many showed central necrosis. All the lesions were isolated; in a few instances, however, they occurred very closely together, forming apparently larger plaques, but the outline of the individual lesions could be plainly seen on careful inspection. There were no lesions above the knee nor in any other part of the body. The patient gave the history of having had an abscess in the palm of the hand some time before the appearance of this eruption, and which was in turn preceded by ulcers in the mouth. She also said that the eruption would come out very quickly—"over night"; not all the lesions would appear at once but occurred in successive crops, a few at a time, until there were from forty to fifty on each leg. The Wassermann was negative. This patient was an inmate of the Philadelphia General Hospital, and Dr. Gaskill said that he had seen her the day prior to the expiration of his service and the lesions at that time were much more violaceous in tint than upon presentation; also that apparently few lesions had developed in the intervening five weeks. When first seen, a diagnosis of papulo-necrotic tuberculide was considered, but the diagnosis was by no means definite.

Discussion.

Dr. Stelwagon was inclined to think that a diagnosis of erythema induratum and also that of a staphylococcia must be considered, but it would be impossible to consider either diagnosis with the history of the violaceous color at the time of onset.

SQUAMOUS CELL CARCINOMA. Presented by Dr. Pfahler.

Dr. X., female, white, aged 50 years. The patient, who was a physician, had noticed a growth on the right side of the tongue for some months, and about three years ago, a portion was removed for pathological examination, with the

foregoing diagnosis. Numerous surgeons saw this condition and advised its complete extirpation, which would require the removal of at least one-half to two-thirds of the tongue. This treatment was refused, and the speaker treated it by electrical coagulation, followed later by radium and X-ray exposures over the submaxillary region. This was done seventeen months ago, and there was apparently a perfect cure.

RODENT ULCER FOLLOWING RHINOSCLEROMA. Presented by DR. STELWAGON.

J. F., female, white, aged 52 years. The patient was presented before this Society on November 11th, 1911, with an unchallenged diagnosis of rhinoscleroma. She had been treated with the X-ray and the tissue had broken down. Radium was afterwards used but the tissue continued to break down beyond the point of application, until at the time of presentation the entire nose was gone as well as the upper lip. A piece of tissue was excised by the Pathological Department of Jefferson Hospital, and the diagnosis made of basal cell epithelioma on a gummatous syphilide, with numerous spirochætæ in the tissue. The Wassermann had been taken several times and was always negative. Several doses of salvarsan had made no impression on the lesion. Comment was made about the finding of the numerous spirochætæ in this gummatous tissue.

DISCUSSION.

DR. GASKILL explained that members of the Pathological Department had remarked about this fact to him and that they were conducting a series of experiments to see if the spirochætæ refringens, which were normally found in the mouth, could penetrate the tissue and produce such a picture of cell infiltration. At the present time, the process seemed to be held in abeyance, and a plastic operation will be performed. This case was recalled by several members of the Society and they all agreed that at the time of its first presentation it was that of a typical rhinoscleroma and bore no resemblance to tertiary syphilis.

VESICULAR SYPHILIDE. Presented by DR. HIRSCHLER.

Female, colored, aged 5 weeks. This patient had been first seen by the speaker about ten days ago when she had numerous lesions on the face, hands and feet, as well as mucous patches and snuffles. The lesions were nearly all vesicular in character, looking, as the speaker said, "like little pearls," on the dark skin. The mother gave a history of having had an eruption some months before the birth of the child, treated with two injections of salvarsan. Another dose was given the mother one week ago. The child was breast-fed and she showed considerable improvement since the last salvarsan injection, given to the mother. The eruption was not nearly so marked but there were still some vesicles to be seen.

DISCUSSION.

DR. HARTZELL remarked that he considered a vesicular eruption one of the rarest of syphilitic manifestation, as he had seen only one other case.

LARVA MIGRANS. Presented by DR. GASKILL.

Female, white, aged 11 years. Three months ago the patient was bathing in the ocean and noticed a stinging sensation on the upper part of the inside of the left thigh. Her mother said she thought it a mosquito bite, and gave it no

attention. The parasite, since then, had traveled in a serpiginous line to the extent of about eighteen inches, the earlier route still being discernible by its brownish pigmentation. A piece of tissue, including the distal end, has been excised and every effort will be made by the speaker to section the parasite *in situ*.

TUBERCULOSIS CUTIS. Presented by Dr. Strickler.

Female, colored, aged 16 years. There was no question about the diagnosis of tuberculosis cutis. This eruption, which was situated on the right cheek, the right side of the nose, on the forehead, with a lesion the size of the palm of the hand, on the abdomen and one small lesion on the left arm, was typical. The patient had been given four injections of tuberculin, 1/20,000 of a milligram, at intervals of a week, with marked improvement. After the second injection, there was considerable general reaction, nausea and vomiting, with a rise in temperature. There had been no external treatment given during this time. Dr. Hartzell and Dr. Knowles had seen this patient at the University Hospital and Dr. Gaskill had seen her at the Jefferson Hospital, and they were all very much impressed with the improvement which had taken place in such a short time.

CASE FOR DIAGNOSIS. Presented by Drs. Stelwagon and Gaskill.

Male, white, aged 34 years. The patient presented a light brown, pigmented condition of the trunk, extending down from both axillæ to the waist line and over the entire abdomen. This pigmentation was very light in color, and scattered over this well defined area were a few, not more than fifteen, papulovesicular lesions. The patient said that the eruption started four years ago; had always been the same and that during that time there were successive scattered vesicles exactly the same as were presented, but that there were never very many at one time; that there were absolutely no itching nor subjective symptoms. There was marked teleangiectasis on the inner side of both arms. No diagnosis was offered.

TINEA SYCOSIS. Presented by Drs. Stelwagon and Strauss.

Male, white, aged 26 years. Six months ago, a small vesicular lesion appeared on the right side of the upper lip which, under the application of zinc oxide ointment, soon entirely disappeared. One month ago, it recurred, and was now about the size of a dime, with considerable induration and covered with a gray scale. Along the submaxillary border, on each side, were about ten or twelve distinct nodules, pea size and extremely inflammatory. The diagnosis lay between a sycosis vulgaris and a tinea sycosis, but as the patient had only been seen for the first time on the day of presentation, no pathological examination had been made.

TINEA PROFUNDA. Presented by Dr. Gaskill.

Male, white, aged 21 years; musician by occupation. On the wrist of the right hand was a horseshoe-shaped lesion, about three inches in diameter, very sharply defined, and at one or two points there was distinct vesiculation. Considerable crusting was present and at places exudation. The patient stated he had had this eruption for one year and that at the beginning, on the application of ointments, it would apparently disappear for the time only, recurring in a very few days.

CHICAGO DERMATOLOGICAL SOCIETY.

Regular Meeting, April 18, 1916.

Udo J. Wile, M.D., *President.*

ADDISON'S DISEASE? Presented by Dr. Slominski.

A Polish cabinet maker, aged 45 years, had had an itching eruption in the flexures of the elbows and knees for six years. Nine months ago this eruption spread over the body and face. Six months ago the pigmentation became noticeable. When presented before the Society, he had a very deep pigmentation of large areas on the face, chest, back and thighs, alternating with very pale areas. Pigmented macules were present on the lips and buccal mucosa.

The skin of the forearms and hands was thickened and scaling. The case was presented by courtesy of Dr. Williamson, in whose service at the Cook County Hospital it belonged. The patient complained of progressive weakness and loss of weight amounting to forty pounds in a few months. He says he took "drops" for some time.

Discussion.

Dr. Ormsby was of the opinion that the disorder was a generalized eczema, induced by a staphylococcic microörganism. He had seen such cases, which really represented those described as eczematoid dermatitis. He could not account for the pigmentation, but he did not believe it occurred as a part of the eczematous process; and further he believed that the case could hardly be called one of dermatitis exfoliativa.

Dr. McEwen considered it an arsenical pigmentation, whether preceding or following the dermatitis he did not know.

Dr. Harris said that it was a case of general exfoliative dermatitis with hyperidrosis.

Dr. Stillians was struck by the sharply contrasting areas of pale skin next to areas that were almost black. He believed it a vitiligo combined with a pigmentation like Addison's disease. He had recently seen such a combination in a case of metastatic sarcoma with involvement of the adrenals.

Dr. Wile could not agree that there was a loss of pigment. The presence of pigmentation on the mucosa with a loss of forty pounds suggested Addison's disease. He suggested that the man be examined for evidences of tuberculosis.

Dr. Zeisler asked if the patient had taken a good deal of arsenic. He did not put much weight upon the pigmentation in the mouth and thought the sharply circumscribed patches on the skin did not look like Addison's disease. He would suggest the possibility of a malignant (sarcomatous) process without tumor formation.

ERYTHEMA MULTIFORME WITH MARKED PIGMENTATION. Presented by Dr. McEwen.

A Jewish tailor, about 50 years of age, had his first slight attack in December, 1915. He came into the hospital February 20th, 1916, with a very dark bluish-red eruption of the face and backs of the hands, and a severe stomatitis. The disease was ushered in with chills and vomiting. Since then he had had three attacks, each one more severe than the preceding one. The eruption had the same livid color each time, leaving a deep pigmentation which had no time to clear up between attacks. The last attack involved the trunk as well

as the extremities, but the mouth was not severely affected, possibly, because he had had all his teeth, which were very bad, extracted. He presented deep brown pigmented areas with gyrate borders, involving nearly the whole face and the backs of the hands. The limbs and trunk are dotted with large, deeply pigmented macules. On the face some of the purplish congestion was still seen.

Discussion.

Dr. Ormsby was of the opinion that it was a toxic erythema of some kind.

Dr. MacEwen said that when the patient entered Cook County Hospital he showed a typical erythema multiforme, but had been sent in as a case of erysipelas because of the intense color of the lesions.

BLASTOMYCETIC DERMATITIS. Presented by Dr. Harris.

A negro porter, aged 37 years, said that the disease began nine years ago, on the scrotum. Since then it had progressed upwards over the penis and abdomen and downward and backward over the perineum. When shown before the Society, he presented a broad belt of warty, elevated tissue, bathed in fœtid pus, extending across the abdomen from one iliac crest to the other. Below this the abdominal wall consisted of heavy scar tissue. The penis was much deformed by scarring. Smaller patches of dermatitis were seen on the thighs, and the gluteal fold was filled with blastomycetic tissue, continuous with a lesion extending out over part of the right buttock. His feet became œdematous when up and about, and he occasionally had a little albumin in his urine. He had a small lesion on the tip of the right thumb.

Discussion.

Dr. Harris remarked that this was the third case of blastomycetic dermatitis on the service at Cook County Hospital within two months.

MULTIPLE BENIGN HÆMORRHAGIC SARCOMA. Presented by Dr. Zeisler.

A young man who gave a history of an attack of sore throat over a year ago, accompanied by swelling of the legs and thighs, said that when this swelling disappeared, areas of bluish-red infiltration were left on the legs. His Wassermann reaction was negative. The lesions consisted of irregularly shaped, dark bluish-red, infiltrated patches, tending to ulceration, situated about the toes, ankles and up to the middle of the lower legs.

Discussion.

Dr. Lieberthal said that as he first looked at the case at a distance it appeared like one of Kaposi's multiple hæmorrhagic sarcoma. On closer inspection, Raynaud's disease and lues must be thought of, although the small lesions between the toes strongly resembled Kaposi's disease. The microscope would decide the diagnosis. He further said that deep infiltration and ulceration did also occur in Kaposi's sarcoma.

Dr. Harris thought it a recurrent pus infection in a patient of low vitality, followed by sclerosis, like some cases of elephantiasis.

Dr. Wile could not agree with Dr. Harris. He believed that gangræne due to arteriosclerosis usually occurred in senile patients. He thought the appearance of the nodes was very much like those of Kaposi's sarcoma.

DR. ZEISLER said that his diagnosis was hæmorrhagic sarcoma. He had one other case much like this one. He said the ulcerations and deep furrows in this case were peculiar, but the two sharply circumscribed tumors on the toes were characteristic. He believed the ulceration to be an epiphenomenon.

ERYTHEMA OF THE UPPER LIDS. Presented by DR. HARRIS.

A young woman, aged 30 years, had had the condition for nine weeks. It began with sharp pains in the eyes, followed by the eruption. Three weeks later her eyes were refracted and glasses prescribed, without any benefit to the skin trouble. She complained of smarting and burning sensations in the lids with marked photophobia, but had never had any itching. Both upper lids were bright red, swollen and scaly.

DISCUSSION.

DR. FOERSTER reported having seen several similar cases in the last few months. He said that the itching, burning and œdema lasted for some time and then subsided for a time, only to recur. In several instances it had been traced to irritation of the conjunctiva by particles of face powder, as described by Dr. N. M. Black.

DR. LIEBERTHAL considered it a case of eczema of the lids.

DR. STOKES thought that it resembled several cases of seborrhœic dermatitis of the lids recently seen by Dr. Pusey.

DR. ZEISLER considered it a case of chronic dermatitis due to mechanical causes.

DR. HARRIS thought at first of eczema, but there had never been either exudation or itching. Instead, there had been marked photophobia and pain back of the eyeballs. The patient's refraction had been corrected without benefit.

DERMATITIS HERPETIFORMIS WITH VEGETATIONS. Presented by DR. MCEWEN.

A negro, aged 38 years, first entered the Cook County Hospital in October, 1914, because of a severe sore throat and stomatitis. Two weeks later a vesicular eruption appeared in the axillæ and about the genitalia, resulting in deeply pigmented nodules, which persisted for a long time. The second attack occurred in March, 1915, affecting again the mouth, axillæ and genitalia. In February, 1916, the eruption for which he was presented, appeared. Itching had always been a marked feature. He had a circinate maculo-papular eruption, very dark in color, over the trunk and limbs. Vesicles could be seen in a few places, and in the axillæ, groins, on the perineum and about the mouth were many black vegetations.

DISCUSSION.

DR. ORMSBY considered the case one of dermatitis herpetiformis with vegetations. He stated that it was the general opinion that most cases of pemphigus vegetans, so called, that recover, were in reality examples of dermatitis herpetiformis with vegetations. This subject was thoroughly clarified by Dr. Winfield a few years ago. In the latter's study of the literature, he demonstrated that the so-called benign cases of pemphigus vegetans were probably dermatitis herpetiformis, whereas the malignant cases were true pemphigus vegetans.

DR. ZEISLER would consider first pemphigus vegetans, and then syphilis. He thought the mouth lesions looked like condylomata lata.

Dr. Harris said that he had followed this case with great interest for two years. At first it looked like pemphigus with severe mouth lesions. Then the lesions in the axillæ and about the genitalia became hypertrophic. The patient had slowly cleared up from that attack. On his recent return to the hospital his whole body was covered with circinate lesions which looked like wheals, which spread peripherally over the trunk, neck and arms.

Dr. McEwen suggested that the vegetations in this case might be expressions of the tendency in the colored race to hypertrophic skin lesions.

LUETIC ŒDEMA OF THE LIP. Presented by Dr. Harris.

A woman, aged 45 years, who had had two gummatous lesions of the lower lip accompanied by a very marked œdema, had been under treatment and the nodules had disappeared, but the œdema had persisted.

Discussion.

Dr. Wile referred to a similar case seen by him two years ago, with a soft swelling of the lip without infiltration.

Dr. Harris said that his first case of this kind still had a swollen lip after four years. The case shown presented at first a hard infiltration which might have suggested sarcoid if the Wassermann had been negative. The patient was rapidly improving on antiluetic treatment. He said these cases interested him especially because they so closely resembled some of the cases of so-called sarcoid.

CASE FOR DIAGNOSIS. Presented by Dr. Harris.

The patient was a young machinist who exhibited a linear maculo-papular lesion which extended from the right shoulder to the wrist along the inner side of the anterior surface of the right arm and forearm. It itched somewhat. He had patches of papulo-vesicular eczema in the bends of both elbows and the right knee for three months.

Discussion.

Dr. Wile said that lichen must be the first diagnosis considered, but that the lesion was not a typical example of lichen planus.

Dr. Harris considered that it belonged in the class of cases called by the Germans "strichförmige Eruption."

LICHEN SCROFULOSORUM. Presented by Dr. Zeisler.

The patient was a little girl with scars in the neck resulting from tuberculous sinuses, who presented large patches of follicular-papular lesions, pale pink in color, on the back and chest and on the extremities. These had been present for two weeks. She had had some sort of eruption for several weeks, two years previously.

XANTHOMA TUBEROSUM. Presented by Dr. Stillians.

The patient was a young woman who had tumors on her elbows for several years. After excision they had returned and were slowly increasing in number. They were both in and under the skin, the more superficial ones showing as

opaque yellowish nodules, from two to five millimeters in diameter. Some of the larger of the superficial ones were spindle-shaped, as if they had formed in the scars of former excisions. The subcutaneous tumors were soft and freely movable. The superficial ones were fairly firm, one of the smallest ones on the right knee being quite hard. The skin had not changed in appearance over the few lesions palpable over the right knee and both tendons Achilles. Only the recent lesions were tender and those only slightly so.

Microscopically, small areas of necrosis were seen in the cutis, surrounded by an infiltration of round cells and epithelioid cells, the latter with their long axes in lines radiating from the centres of the areas of necrosis. On staining frozen sections with Sudan III, many large and small globules of fat could be seen in the infiltrations and in some parts of the reticular layer, but no definite xanthoma cells could be found.

CHICAGO DERMATOLOGICAL SOCIETY.

Regular Meeting, May 16, 1916.

Udo J. Wile, M.D., *President*.

XANTHOMA DIABETICORUM. Presented by Dr. Shaffner.

A negro who was shown almost a year before, presented the same picture as when first shown. The eruption cleared up with the disappearance of the glycosuria and reappeared recently with the glycosuria again present.

The speaker presented photographs of a second case in a white individual, also obese, who showed widely distributed lesions of typical color and which were slightly umbilicated. The glycosuria was quite marked. The patient had been seen but once and therefore other findings were not available.

Discussion.

Dr. Engman remarked on the unusual size of the lesions in this typical case. He said he was impressed with the idea that this type is not chemically or fundamentally different from the other types of xanthoma.

Dr. Harris asked if the recurrence of the skin lesions was accompanied by a recurrence of the glycosuria.

Dr. Wile said that it would be natural to expect glycosuria to accompany the recurrence, as the tumors were cholesteroid deposits. He believed there was no association between xanthoma and diabetes, except the fact that cholesterin accompanied glycosuria.

Dr. Eisenstaedt said that he recently had had a case without glycosuria but with hyperglycæmia, which did well on a sugar-free diet.

Dr. Engman stated that since Lassar's work, about twenty-five years ago, on alimentary glycosuria, many cases had been reported in which a sugar-free diet was beneficial in various dermatoses. He said this could be found in Von Noorden's Alimentary Pathology.

Dr. Shaffner asked if any work had been done on the cholesterin content of the blood.

Dr. Wile referred to an article by Harry D. Schmidt in the *American Journal of the Medical Sciences*.

CASE FOR DIAGNOSIS. Presented by Dr. Harris.

The patient was a young woman with gyrate, salmon-colored, maculo-papular patches, partly covered by fine scales which occurred on the trunks and limbs, leaving the face and hands free. There was slight itching.

Discussion.

Dr. Foerster thought it a possible erythrodermia in large gyrate patches. The duration, ten weeks, he considered rather short. He thought the fine scaling and the itching were against this diagnosis, and knew of several such cases that had finally proven to be premycotic.

Dr. Waugh believed it to be a seborrhœic dermatitis because of its distribution, the chest, the scalp, and the areas between the scapulæ and behind the ears being involved. He had seen several cases even more generalized than this one.

Dr. Shaffner considered it to be a parapsoriasis.

Dr. Engman was inclined to think it parapsoriasis, and said that itching might occur in parapsoriasis. He had recently seen a case in St. Louis that during two years was clinically erythrodermia, but within the last few months infiltration had occurred, so that it was then clinically mycosis fungoides, although microscopically still parapsoriasis. He did not believe Arndt's dogmatic statement that the diagnosis could be made absolutely upon the histological examination.

Dr. Pardee did not consider it a parapsoriasis, but was in favor of the diagnosis of seborrhœic dermatitis.

Dr. Wile stated his belief that a differential diagnosis between mycosis fungoides and parapsoriasis was sometimes impossible. He believed that many cases of parapsoriasis later developed into mycosis fungoides, and that cases of apparently clear premycotic eruption never went beyond this stage.

CASE FOR DIAGNOSIS. Presented by Dr. Harris.

The patient was a young woman in apparently good health with keratosis pilaris on the arms, legs and thighs, and, in addition to this, a recent eruption, present only about ten weeks, which consisted of yellowish-pink maculo-papules, not sharply defined, discrete, and from pin head to split pea size, over the arms, forearms, chest, back and thighs. The eruption itched slightly. The Wassermann reaction was frankly negative.

Discussion.

Dr. Pardee thought of a drug eruption and of lichen planus.

Dr. Waugh considered it to be a drug rash or toxic eruption.

Dr. Shaffner believed it to be pityriasis lichenoides chronica.

Dr. Engman had seen toxic eruptions like it.

Dr. McEwen thought it too long continued to be a toxic eruption.

Dr. Wile stated that in his opinion it belonged to the urticaria group.

Dr. Foerster said that he had regarded as toxic many of these urticaria-like eruptions.

Dr. Harris said that in his opinion the itching was altogether too slight to allow of the diagnosis of urticaria. He was impressed with the punctate vascular dilatations.

CASE FOR DIAGNOSIS. Presented by Dr. Harris.

The patient was a man, aged 40 years, who had had for a year an eruption of large papules on the anterior and lateral part of the neck, at the level of the top of his collar. When the lesions appeared they tickled and itched; he picked them open and extracted from them a "worm-like body." This relieved the itching.

Discussion.

Dr. Shaffner said he thought it a mania, occurring in individuals of much the same nervous tendencies as were seen in the cases of trichotillomania.

Dr. Pardee said that to him it suggested the condition described by Crocker as acne keratosis. The patient extracted a horny plug from the lesions.

Dr. Engman agreed that it was a case of acne keratosis. He said that Crocker also described acne excories, a disease occurring in nervous young girls. He had had a case which belonged to this group in a man who had spine-like papules develop on his bald scalp, which he scratched off as soon as they appeared.

Dr. Waugh agreed with the diagnosis of acne keratosis. He said that Dr. Ormsby had recently had two cases with numerous lesions on the face, which were slow in yielding to treatment.

Dr. Harris said that he had at first considered it a neurosis, because he could find no cores. The patient had been asked to save the material scratched out, and had returned with definite holes from which tissue had been removed.

SECONDARY SYPHILIS. Presented by Dr. Harris.

The patient was a man, about 25 years old, with a history of sore throat followed by a great enlargement of the cervical glands on the right side and later by a sore on the lip and an itching follicular papular eruption on the trunk, with flat papules on the prepuce, and in the palms.

Discussion.

Dr. McEwen considered the lesion on the lip a mucous patch and the itching eruption on the body and penis as due in part to concomitant scabies.

Dr. Stillians confessed that he had taken the lesion on the lip for a probable chancre. He had not seen evidence of scabies, and had found itching a not infrequent accompaniment of secondary syphilides.

Dr. Harris stated that in his opinion the lesion on the lip was a mucous patch and the primary lesion had probably been on the tonsil.

CASE FOR DIAGNOSIS. Presented by Dr. Harris.

The patient was a plumber, aged 45 years, who had had erysipelas eight weeks ago, and since then had had a bright red, rather sharply defined erythema of the nose and the adjacent cheeks, which was butterfly-shaped, with many small pustules and pitted scars upon the slightly infiltrated red base. He also had a papillomatous, round lesion on the chin and another on the back of the neck, and on the posterior pharyngeal wall there were several small ulcers, which were round and "punched out" in appearance. At the time of onset of the erysipelas he was a patient in the tuberculosis ward on account of a pulmonary involvement. He had a strongly positive Wassermann.

Discussion.

Dr. Pardee thought the whole process syphilitic.

Dr. Foerster thought it lues, but would study the case with the possibility of miliary lupus in mind.

Dr. Engman asked if tubercle bacilli had been found in the sputum.

Dr. Harris said that they had been found.

Dr. Engman said that the case looked to him like a lues whose lesions had been localized by the trauma of erysipelas. He had recently seen several interesting cases of this sort. A man had late syphilides localized on his shoulders, where he carried sacks of flour. A woman who had had a mastoid abscess the previous year, had scars of a subsequent papular eruption on the chin and eyebrow of that side. This year she had had a mastoid operation on the other side and following it a late papular syphilide of the chin and eyebrow of the corresponding side, distributed like a zoster.

Dr. Harris had at first considered the case a rosacea, but as it had slowly progressed the lesion on the chin resembled tuberculosis verrucosa cutis and the pharyngeal ulcers looked like tuberculosis. He asked the opinion of those present on the possibility of its being a miliary lupoid.

Dr. Wile thought it probably syphilitic. He said the lesions were not typical of either lupus vulgaris or syphilis.

Dr. Stillians stated that he had watched the case with great interest, and still believed it luetic, in spite of the slight effect from treatment. He had thought of the possibility of a mercury-fast strain of spirochætae, and because the tuberculosis made it difficult to give the iodides, he was anxious to see what could be done with salvarsan.

LICHEN NITIDUS. Presented by Dr. Harris.

The patient was a man, aged 32 years, with white papules of pin head size on the glans penis, some of them discrete, others confluent, which had been present for several months but had caused no subjective symptoms.

Discussion.

Dr. Waugh considered it lichen planus.

Dr. Shaffner thought it a case of lichen albus.

Dr. Engman had diagnosed it the white spot variety of morphœa.

Dr. Eisenstaedt believed it to be lichen albus.

Dr. Wile considered it more like morphœa. He said he had seen two cases similar to this, one with a ring-like constriction of the foreskin, typical of localized scleroderma. The second case, which was strikingly similar to this one, occurred on the glans penis.

Dr. Harris had eliminated lichen planus and morphœa and believed it to be a case of lichen nitidus.

MINNESOTA DERMATOLOGICAL SOCIETY.

Regular Meeting, Tuesday, October 10, 1916.

Burnside Foster, M.D., *President.*

DERMATOBIA NOXIALIS. (Brauer.) Presented by Dr. Armstrong.

Mr. D. visited Nicaragua and while there he was bitten on the scrotum by a mosquito, so he supposed. Six days later a slight, hard swelling occurred,

having a small opening at its apex. He was told that probably he had a "grub." Three weeks later, when seen here, there was a subdermal swelling about the size of a filbert, with a small opening, discharging a little serum. The lesion was accompanied by a slight boring pain. Incision permitted the extraction of the larva and healing promptly occurred. The speaker also called attention to a similar case reported by Singleton of Galveston, Texas, in the *Jour. Amer. Med. Assn.*, 1912, lviii, p. 1282.

Discussion.

Dr. Olson mentioned the report of another case of this kind occurring in a sailor at Chelsea, Mass., reported by Allan Stuart in the *Military Surgeon* of December, 1905. The manner in which the larva reaches the skin is very peculiar. According to recent observations, the Dermatobia noxialis lays its eggs on leaves in damp places. These eggs have a sticky substance at one end and thus become attached to the body of a mosquito, the Janthinosoma lutzi, and are thus conveyed to man or vertebrate hosts.

GRANULOMA PYOGENICUM. Presented by Dr. Armstrong.

The patient, Mr. W., a carpenter by trade, cut himself with a razor on his cheek two years ago, and a month later cut the same place again. The cut failed to heal for some time but finally did so. Six months ago, the lesion returned and had remained as presented,—a round, granulating, raised papule about the size of a large pea.

LUES HEREDITARIA TARDA? Presented by Dr. Armstrong.

The patient was a female, aged 34 years. The patient's mother had undoubtedly syphilis, the lesions of which started some months before the birth of the patient. Eight years ago, dark red, infiltrated lesions appeared about the alæ nasi and the upper lip. These lesions healed with scarring. At the same time a similar lesion appeared on the left cheek, gradually spreading with scarring in the centre. The patient had been given X-ray treatment. A Wassermann test was refused by the patient. Mercury and salvarsan had had no effect on the lesion.

In the discussion, scleroderma and atypical sarcoid were mentioned as possibilities.

PIGMENTATION OF THE SKIN DUE TO EFFLORESCENT IRON SULPHATE. Presented by Dr. Butler.

The patient, a young lady, had poison ivy dermatitis of the forearms in June, 1916. She was advised by a friend to apply a solution of copperas or iron sulphate. (Iron sulphate is an efflorescent salt, and upon exposure of the crystals to moist air, absorbs oxygen. The crystals then become coated with a brownish-yellow, basic iron sulphate. When the salt has thus deteriorated, it should not be used for any official purpose, as it gives a precipitate of ferric oxide.) This precipitate was lodged in the open vesicles, and either through chemical changes in the tissues or by direct tattooing, the permanent pigmentation on the forearms was produced.

Discussion.

Dr. Foster stated that as the vesicles in poison ivy dermatitis were quite superficial, he doubted any tattooing effect in this case.

ANGIOMA SERPIGINOSUM. Presented by Dr. Butler.

The patient was three months old, a boy. One week after birth, the mother noticed a red swelling on the septum of the nose, which was undoubtedly a vascular nævus. A few days later the lip was involved and two weeks later there appeared a few dilated vessels on the left cheek and on the left hand. Six weeks later, the forehead became involved, a small dime-sized patch began to enlarge peripherally. The region of the sternum showed a few punctate spots which became confluent, growing peripherally, and later involuting in the centre, showing a white area. Five weeks after birth the vascular nævus involving the nasal septum ulcerated and part of the septum necrosed.

Discussion.

Dr. Sweitzer suggested alcohol injections for the large angioma or vascular nævus, and called attention to the not infrequent ulceration of rapidly growing angiomas.

Dr. Boreen stated that in a large cavernous angioma of the cheek he had obtained excellent results by freezing with carbon dioxide snow.

Dr. Olson cited a case of an ulcerating, rapidly growing angioma, similar to this case, which had destroyed half of the external ear. This type of angioma showed some resemblance to an angio-sarcoma.

LEPROSY. Presented by Dr. Boreen.

The patient, aged 30 years, married, presented herself with an eruption of many months' duration. She had been treated for myxœdema. The eruption consisted of numerous nodules about the size of a pea, located on the face. Large macular areas were present on the body but she showed no anæsthetic areas. The skin showed a bluish congestion and the lips were œdematous. Biopsy showed numerous lepra bacilli and these bacilli were also demonstrated in the nasal secretion. The Wassermann reaction was four plus.

Discussion.

Captain Johnson, Medical Corps, U. S. A. (by invitation) stated that the small nodules on the ears were very important in early diagnosis. Segregation was of the greatest value in preventing the spread of the disease.

Dr. Foster cited the case of a patient with leprosy that he had treated for eleven years, and at the present time the patient was practically well. He stated that there was very little danger of the spread of the disease in this state.

Dr. Olson stated that we should follow the practice that obtained in all countries that had any extensive scientific experience in dealing with leprosy, as Norway, Sweden, Hawaii and the Philippines. These countries had all adopted segregation of all cases. All patients with leprosy in the United States should be sent to a national leprosarium.

DERMATITIS HERPETIFORMIS. Presented by Dr. Boreen.

The patient, a man, aged 31 years, had had an eruption of several years' standing, with frequent acute exacerbations. He presented erythematous areas and vesicles with an erythematous halo. The lesions were symmetrically arranged and associated with intense itching.

Discussion.

Dr. Sweitzer suggested the use of staphylococcus vaccine.

Dr. Olson mentioned the use of emetine in this condition, as suggested by Engman.

Dr. Irvine stated that he had given ipecac internally to one patient with this disease, but without benefit.

Dr. Butler stated that he understood that emetine was of no value in this condition.

LICHEN PLANUS HYPERTROPHICUS. Presented by Dr. Boreen.

The eruption in this patient, a female, aged 30 years, consisted of large, scaly patches on the extensor surfaces of the arms, almost typical of psoriasis. However, on the legs, back and lower extremities were found typical lichen planus papules. Itching was severe.

EPIDERMOPHYTOSIS OF HAND. Presented by Dr. Sweitzer.

Miss S., aged 22 years, had had this disease for two years. Deep-seated vesicles had appeared, finally drying and scaling. Recently an acute attack had occurred and numerous vesicles were present. The fungus was demonstrated, and treatment instituted with Whitfield's ointment. Marked improvement had resulted.

SYPHILITIC TINNITUS AURIUM AND DEAFNESS. (Two Cases.) Presented by Dr. Olson.

The first patient was a man, aged 42 years. Syphilis was acquired four and a half years ago and the patient had no treatment, the initial lesion having been treated locally by a quack. Eighteen months ago, ringing in the right ear with some deafness was noticed by the patient. This condition had grown progressively worse, accompanied by other symptoms, as loss of smell and headache. Three months ago he had symptoms of marked cerebral lues, severe headache and loss of orientation. At times, when on the street, he did not know where he was. Tinnitus aurium was practically constant and so severe as to interfere with sleep. He was given twenty injections of mercury salicylate and three injections of salvarsan. Marked improvement followed the injections of mercury, but complete relief of the tinnitus aurium was noticed for the first time after the third salvarsan injection. After the second salvarsan, the patient had severe headache in a region of the head not previously affected and stated that he was blind for five minutes. After the third salvarsan, complete relief of the ringing in the ears was obtained, and the patient stated that he felt better than at any time in the past two years. A week later, ringing in the ears had recurred, and the patient was to be given three more salvarsans.

The second patient was a woman, aged 38 years, who had acquired syphilis ten years ago. At that time she had had six months' treatment with pills and had received no further treatment. A little over a year ago she had tinnitus aurium, followed by complete deafness in the right ear. After two injections of mercury salicylate she noticed a return of the ringing in the right ear.

Discussion.

Dr. Wright cited the case of a patient whose only symptom was loss of hearing. Six months previous to this, he had a small sore on the penis, which

had healed under local treatment. He had received no constitutional treatment. His wife also was infected with syphilis. Under antisyphilitic treatment he recovered entirely from the deafness.

Dr. Irvine called attention to the fact that the auditory apparatus was quite commonly affected in early lues.

Dr. Hilger (by invitation) stated that some years ago it was considered dangerous in Vienna to give salvarsan in cases with ear involvement, but later its use was recommended. In one hundred cases of florid syphilis examined in Vienna, bone conduction was lessened in all, even though hearing, as regards ordinary conversation, was not affected.

DERMATITIS VEGETANS DUE TO B. PYOCYANEUS. Report of case by Dr. Klein.

The patient, Mrs. F., was a laundress, and while at work had injured her left shin. The disease had started at the point of injury on the left shin, in an area about the size of a dime. This area ulcerated and had gradually spread until it involved the entire leg, from above the knee to the ankle. There was a large granulating, purulent mass resembling the condition sometimes found in varicose ulcer, although there was no evidence of varicose veins. The leucocyte count was normal, the Wassermann reaction was negative, and antiluetic treatment had no effect on the condition. Cultures showed an almost pure culture of B. pyocyaneus. Wet bichloride dressings seemed to aggravate the condition, but she improved markedly under 1% lysol solution and immersion in a saline bath, twice a day. She was practically well in about two months.

Discussion.

Dr. Sweitzer cited a case of dermatitis vegetans of the sole of the foot that finally cleared under thorough curetting of the lesion.

DERMATITIS EXFOLIATIVA. Presented by Dr. Wright.

This patient, a man aged 34 years, showed a red, scaling, universal dermatitis. The disease had started last January, while the patient was engaged in baling hay in South Dakota. Itching had been severe. The patient stated that the man that worked with him last winter, baling hay, acquired the same disease.

REVIEW

OF

DERMATOLOGY AND SYPHILIS.

Under the direction of

FRED WISE, M.D., New York,

Assisted by

CLARENCE A. BAER, M.D., Milwaukee.
WILLIAM H. BAUGHMAN, M.D., New York.
PAUL E. BECHET, M.D., New York.
J. S. EISENSTAEDT, M.D., Chicago.
CHARLES GOOSMANN, M.D., Cincinnati.
JAMES F. GRATTAN, M.D., New York.
W. H. GUY, M.D., Pittsburg.
ROBERT C. JAMIESON, M.D., Detroit.
FREDERICK T. LAU, M.D., New York.
M. F. LAUTMAN, M.D., Hot Springs.
OSCAR L. LEVIN, M.D., New York.
M. L. RAVITCH, M.D., Louisville.
ISADORE ROSEN, M.D., New York.
MAX SCHEER, M.D., New York.
PHILIP F. SHAFFNER, M.D., Chicago.
A. W. STILLIANS, M.D., Chicago.
JOHN H. STOKES, M.D., Chicago.
HARVEY P. TOWLE, M.D., Boston.
VICENTE PARDO, M.D., Havana, Cuba.

MUENCHENER MEDIZINISCHE WOCHENSCHRIFT.

(Oct. 5, 1915, lxii, No. 40.)

Abstracted by ARTHUR WILLIAM STILLIANS, M.D.

THE NUMBER AND FORM OF THE WHITE BLOOD CELLS IN SPOTTED FEVER. M. MATTHES, p. 1345.

In 80% of 35 cases of typhus the author found a leucocytosis of 9000 or over. Only three cases had a count of over 20,000 and these were all very severe cases, two of them fatal. None of the 20% of cases with a leucopenia had a count of less than 4000 during the acute stage. During this stage the differential count showed 80 to 85% of polymorphonuclears and no eosinophiles. Later the percentage of polymorphonuclears decreased and was supplanted by an increase of small mononuclears, 22 to 43%, and eosinophiles up to 9%, without much decrease in the whole number of white cells.

The typical blood picture of typhus is therefore of value in the differential diagnosis from typhoid, in which a leucopenia with a lymphocytosis is characteristic. But cases of typhoid occurring soon after antityphoid vaccination often show a leucocytosis with a normal differential count.

From measles, the 20% of typhus cases with low white count are not to be differentiated by the blood picture.

The author discusses also the differential diagnosis on clinical grounds.

BOECK'S SARCOID WITH INVOLVEMENT OF THE INTERNAL ORGANS. E. KUTZNITZKY AND A. BITTORF, p. 1349.

The authors describe a very interesting case of sarcoid in which the superficial lesions resembled lichen planus, but were easily differentiated histologically. There were many subcutaneous tumors on the arms and forearms, also showing the typical groups of epithelioid cells not surrounded by round cells, with occasional giant cells, and usually with no sign of central necrosis.

In addition to the skin lesions, the liver was somewhat enlarged, the spleen was markedly enlarged, especially in its long diameter, hard, smooth and not tender, the X-ray picture of the lungs showed a marked darkening of the whole lung area and hyaline and granular casts and a trace of albumin were found in the urine. All the accessible lymph glands were slightly enlarged. A moderate cyanosis of the face was increased on mild exertion. No skin or subcutaneous lesions were present on the face or scalp. The white blood count ranged from 2200 to 7500, with an eosinophilia of from 4 to 14%.

The authors report similar lung findings of varying degree in all of 6 other cases examined. In 3 of these, enlargement of the spleen was found and in 3 an apparently characteristic disease of the mucous membrane of the nose, pharynx, epiglottis and larynx was present. None of the cases reacted to tuberculin either locally or generally, although the subcutaneous dose was from 1.2 to 6.0 mgs.

It seems to the authors conclusive that the disease is not tuberculosis, for they cannot conceive of a lung involvement so extensive, failing to react to tuberculin and constantly remaining negative as to fever and bacilli in the sputum. The blood count and the prompt reaction to arsenic also speak against tuberculosis. The improvement under arsenic and the enlargement of liver, spleen and lymph glands suggest a relationship to leukæmia and pseudo-leukæmia.

(*Ibidem*, Oct. 19, 1915, lxii, No. 42.)

TREATMENT OF VENEREAL BUBOES WITH ROENTGEN RAYS. K. KALL, p. 1421.

From an experience of a year and a half, in which all cases of bubo have received Roentgen ray treatment, the author recommends the treatment, especially before fluctuation has appeared, or even if it is already beginning. Pain and glandular swelling following a soft ulcer are promptly checked by a single exposure of 10X under an aluminum filter. When softening has begun, it can still be absorbed, but if the abscess has attained any considerable size, it must be drained. The Roentgen treatment, however, shortens the duration of purulent discharge and accelerates closure of the wound. The prompt effect of Roentgen rays in these cases is in line with its action in other forms of lymphoma. The author prefers the Sabouraud-Noiré dosimeter as the handiest for use in the field hospital, and cautions that the testicles must be well protected with lead.

RECENT PROGRESS IN THE PHYSICS OF ROENTGEN RAYS. A. SOMMERFELD, p. 1424.

This is a résumé of recent discoveries of absorbing interest. The proof that Roentgen rays and the gamma rays of radium are really light rays is furnished by success in refracting them and measuring their wave lengths. To express these measurements the micro-micron, u u, one thousandth of a micron, is used. The blue rays of sunlight have a wave length of about 400 micro-microns,

the hardest Roentgen rays measure about one ten-thousandth of this, 0.036 micro-micron, and the wave length of the gamma rays is about one fifth of this, 0.0072 micro-micron. The author therefore thinks it not impossible that with the Coolidge or Lilienfeld tubes, Roentgen rays may be produced that are as penetrating as gamma rays.

The measurement of these extremely short wave lengths has been made by means of crystals of various salts, and has demonstrated at the same time the arrangement of the atoms in the crystals. This corresponds exactly with the theory of valences, but does not allow any consideration for the molecular theory, at least so far as crystals are concerned. For instance, each chlorine atom of rock salt is equi-distant from six atoms of sodium, and there is nothing to show that it is more closely bound to any one of these atoms than to the other five. It is therefore probable that in crystals, at least, there is no such unit as the molecule, but that the unit next larger than the atom is the crystal itself. The article explains the methods and findings in detail.

(*Ibidem*, Nov. 23, 1915, lxii, No. 47.)

THERAPEUTIC RESULTS OF EXPOSURE TO THE QUARTZ LAMP. G. STUEMPKE, p. 1604.

The author reports good results with his treatment in cases of prurigo, pruritus and lichen simplex. In chronic eczema he believes that the light causes a resensitization of the tissues, so that they react better to other measures.

ALOPECIA AREATA FOLLOWING GUNSHOT WOUNDS. A. POEHLMANN, p. 1623.

A thirty-seven-year-old soldier was wounded by shrapnel in the left forearm, and for three-quarters of an hour had to travel in the line of fire of the enemies' artillery in order to retire. Four days later he had a severe headache and noticed his hair falling out. Alopecia areata developed and progressed to practically complete baldness of the scalp, only a few small bunches of hair remaining on the temples, seven months after the onset. Several areas in the eyebrows and beard were involved. The author mentions also an earlier case of his, a man who was lost in a storm in the mountains and rescued after almost fatal exposure. Four days later, alopecia areata began, accompanied by severe headache and partial grayness. The involvement of the hair was sharply confined to the right side of the scalp. Only fifteen cases of this kind are previously reported in the literature.

To explain these cases, he cites Kreibich on "late reflexes." The shock is supposed to cause a lasting vaso-constriction in the capillaries of the scalp, upsetting the delicate mechanism of the nutrition of the hair papillæ. He believes that these cases, as well as those occurring in the areas supplied by traumatized nerves, should be classed as alopecia areata neurotica and traumatica, respectively.

(*Ibidem*, Nov. 30, 1915, lxii, No. 48.)

CONCERNING THE CONFUSION OF QUICKSILVER AND SALVARSAN EXANTHEMS. W. WECHSELMANN, p. 1638.

The author warns against the combined treatment with mercury and salvarsan, and against the uncritical designation of every dermatitis during or following mixed treatment, as due to salvarsan. He cites Case four in Bernhard Fischer's article, in which, after a course of combined treatment a measles-like eruption, at first brick red, later violaceous, then vesicular, accompanied by des-

quamation, the fever persisted and the case ended fatally. Salvarsan was blamed, but on chemical examination of the liver, 1100 times as much mercury as salvarsan was found, so that the verdict was against the mercury. He says that the mercurial toxic eruptions need to be better known. He reviews the case reported by Philip, in which, after a course of mercurial inunctions and neosalvarsan, a papulo-bullous eruption occurred, with marked desquamation of the palms and soles, followed by a thickening of the horny epidermis of these regions, with dryness and loss of elasticity resulting in fissures and brown, wart-like keratoses, especially marked on the thumbs and little fingers. These Philip claims as arsenic keratoses, but Wechselmann disputes this claim, as such a condition is the usual result of desquamation of these parts and is not at all like the tough, elastic keratoses resulting from arsenic. A scarlatiniform eruption, at first brick red, later violaceous, then vesicular, accompanied by high fever and often by oliguria and albuminuria, makes a clear diagnosis of mercury dermatitis. The universal arsenic dermatitides are usually pustular, pemphigus-like or zoster-like eruptions, sometimes causing ulcers. Seldom are they papular or urticarial. The typical arsenical melanosis frequently accompanies them. In at least 60,000 injections of salvarsan he has never encountered an eruption ending with desquamation, vesiculation and lasting fever.

(*Ibidem*, Dec. 7, 1915, lxii, No. 49.)

Abstracted by Arthur William Stillians, M.D.

CARBON DIOXIDE SNOW AS A SENSITIZER IN RADIUM THERAPY. E. Sommer, p. 1676.

The author reports two cases of cancroid of the face in which radium seemed to fail. Carbon dioxide snow was then applied for 45 seconds, under heavy pressure. In spite of a severe reaction the tumor was not destroyed, so that two months after the freezing, radium was again used in the same dose and with the same technique as at first. Three weeks after this, the tumors had disappeared in both cases and they have remained well one and two years, respectively. In a third case, one of hyperkeratosis about and under the thumb nail, which had resisted arsenic paste, Roentgen rays and radium, the same combination of carbon dioxide snow and radium was successful.

CONTRIBUTION TO THE LOCAL TREATMENT OF MENINGEAL SYPHILIS. Gennerich, p. 1696.

The real field for endolumbal treatment is in the meningeal recurrences, cerebrospinal syphilis and incipient meta-lues. It is justifiable to try it also in older cases of meta-lues with good general condition, but too much must not be expected of it. The cause of this strict limitation of the benefit from the treatment lies, not in a change in the spirochætæ, but in the changes in the pia mater. On account of the secondary inflammation, its function of protecting the cells and fluids of the brain from the cerebrospinal fluid is prevented and the protective elements of the tissue juices, as well as the mercury and salvarsan that have succeeded in getting into contact with the foci of the disease, are so diluted that their value is lost. Endolumbal treatment is the method of choice; but in the advanced cases it is very difficult to get enough of the drug into contact with the deep foci without overstepping the tolerance of the tissues and damaging nerves instead of healing.

The spinal cord cases are especially sensitive and require only the smallest doses. Depending on the extent of spinal involvement, the dose ranges from

0.25 mg. to 1.0 mg. In tabes with no Romberg sign and still obtainable knee jerk, a dose of 1.0 mg. is allowable. The more prominent the ataxic symptoms are, the more strictly does the author hold to a dose of 0.25 to 0.33 mg. In the histologic meningo-recurrences, he gives not more than 1.5 mg. for fear that the pial protection of the spinal cord may be weakened somewhere. Purely cerebral cases, such as true paralysis, will stand 4.0 to 6.0 mg. doses, but he advises against them because they irritate the intra-spinal structures and prevent frequent repetition of the treatment. He gives these cases 1.0 to 2.0 mg. every two and one half to three weeks, decreasing the dose after the third injection, and giving two or three doses after the spinal fluid is clear and the Wassermann negative in the fluid.

In deep seated tabes he gives 8 to 10 endolumbal injections combined with intravenous treatment, when the patient's general condition is good. Intravenous treatment alone has not been satisfactory, all classes of central nerve lesions having recurred after apparently yielding to treatment. After endolumbal treatment the period of clinical cure has been much longer. He warns that in fresh meningo-recurrences it is necessary to give one or two small intravenous injections to avoid a strong reaction from the endolumbal injection. He is sure that the usual symptomatic salvarsan treatment has increased nervous syphilis extraordinarily. He finds in cases who have received only one injection of salvarsan in the secondary stage, spinal fluid signs of syphilis in 81% of the cases. In those who have received more treatment than this, but yet not enough, he finds positive spinal fluids in 72%. To avoid such damage, he advises only mercury for the secondary stage, in the treatment of soldiers and sailors during the war.

The author describes his technique, and ends by emphasizing the need of examining the spinal fluid in all cases at the close of the general treatment and again a year to a year and half later. In cases that have received insufficient treatment in the early stages, this examination is of the utmost importance.

THE USE OF CONCENTRATED SOLUTIONS OF SALVARSANNATRIUM. SEYFFARTH, p. 1707.

Salvarsannatrium in 5% solution in distilled water gives an isotonic solution. After trying this, the author gradually increased the concentration until he now gives 0.45 gram of the drug in only 1.0 cc. distilled water. This has been well borne in all cases in which he has used it.

(*Ibidem*, Dec. 14, 1915, lxii, No. 50.)

A CONTRIBUTION TO NEOSALVARSAN THERAPY. W. POWITON, p. 1721.

A very interesting report of a case of multiple neuritis occurring in a man under treatment with mercury for an early lues. The Wassermann reaction in the spinal fluid was negative. Injections of succinimide of mercury were given, but the patient steadily grew worse until neosalvarsan was tried, when he at once showed improvement and cleared up entirely after four doses. After the second of these, 0.3 gm. in 20 cc. of 0.4 salt solution, a severe reaction occurred, with lowering of blood pressure, headache and pains all over the body.

(*Ibidem*, Dec. 21, 1915, lxii, No. 51.)

A CASE OF TERTIARY LUES AFTER VACCINATION AGAINST TYPHOID. K. BARDACH, p. 1756.

Following the first injection of typhoid vaccine, there was no general reaction and nothing was noticed at the site of the injection until three days

later, when the skin in this vicinity reddened and lesions appeared which were diagnosed as gummata, three months later. The primary lesion, 20 years previously had not been recognized and no history of secondaries could be obtained. The author thinks it probable that the injection of vaccine was the exciting trauma to stir up the long latent syphilis.

(*Ibidem*, Jan. 18, 1916, lxiii, No. 3.)

A CASE OF HERPES ZOSTER IN THE DISTRIBUTION OF THE CERVICAL PLEXUS AFTER VACCINATION AGAINST TYPHOID. M. Budde, p. 103.

Two days after his second injection of the vaccine, the patient, a soldier in good health, began to have pain radiating from the site of the injection in the right subclavicular region, up to the angle of the jaw and the ear. The next day a typical zoster appeared, with the most severe lesions in the distribution of the supraclavicular nerves. From the peculiar involvement of the nerves in this region, the author reasons that the zoster was the result of injection of the vaccine directly into one of the branches of the supraclavicular nerves and ascending along it, to the plexus, thus involving the other nerves.

(*Ibidem*, Jan. 25, 1916, lxiii, No. 4.)

CONCERNING THE CONFUSION OF MERCURY AND SALVARSAN EXANTHEMS. A. Neisser, p. 122.

The author approves of Wechselmann's protest against blaming salvarsan indiscriminately for all occurrences that follow its use. He also agrees that it is often impossible to differentiate between an eruption from mercury and one from salvarsan. Salvarsan eruptions are not always typical. He has seen a number of cases with a diffuse scarlatiniform dermatitis after treatment with salvarsan alone, though Wechselmann describes this as typical of mercurial reaction. On the other hand, he has never seen pustular pemphigus-like eruptions or zoster-like eruptions, sometimes terminating in ulcers, as described by Wechselmann as occurring after salvarsan.

Neisser describes two forms of salvarsan eruption. The first he calls an arsenic exanthem, beginning a few days after the last of a series of injections with a chill, followed by fever. The eruption appears as small macules, at first discrete, but soon becoming confluent and spreading rapidly until a large part of the body is covered. There is more or less itching, and some infiltration of the skin, and the attack ends by a large-scaled desquamation in one, two or more weeks. In especially severe cases there may be some moisture, but very rarely vesiculation. The palms and soles are involved and may show the inelastic infiltration with fissure formation, as described in Philip's case. These palmar lesions are not arsenical keratoses. He has never seen arsenical keratoses or melanosis from salvarsan. These cases occurred mostly in the earlier years of the salvarsan era, when large doses were given at short intervals, and the suspension of salvarsan in oil was injected intramuscularly and absorbed gradually, allowing the salvarsan to be transformed before absorption.

The other group of eruptions is more indicative of a special sensitiveness of the skin to the drug and consists of papulo-urticarial or erythematous urticarial eruptions, appearing after every or almost every injection, often not severe enough to bother the patient except by the itching, and disappearing spontaneously in a few days, without desquamation. They are closely related to the immediate reaction with œdema of the skin or other parts, and depend on a vasodilator effect. The severe cases of the second type lead also to exfoliative

dermatitis. The author thinks Wechselmann has made a mistake to ascribe these eruptions to mercury. He has seen them always connected with salvarsan, never with mercury.

The question of responsibility for these reactions, however, has little weight against the undoubted advantages of mixed treatment.

FREEZING AND UVIOL LAMP TREATMENT IN CONNECTION WITH ROENTGEN AND RADIUM EXPOSURES. H. Axmann, p. 123.

The author agrees with Sommer that previous treatment with carbon dioxide snow increases the sensitiveness to Roentgen rays and radium. He has been using this combination treatment since 1911, for all cases in which a superficial effect was desired, especially in epithelioma, nævus and psoriasis. He further states his belief that by ultraviolet light exposures between the Roentgen or radium exposures he is able to prevent teleangiectases and other injuries to the skin, increasing its resistance in this way, just as it is decreased by the freezing.

ANNALES DE DERMATOLOGIE ET DE SYPHILIGRAPHIE.

(October, 1915, No. 11.)

Abstracted by Paul E. Bechet, M.D.

CONTRIBUTION TO THE STUDY OF KRAUROSIS VULVÆ. L. Brocq, p. 578.

Brocq believes that the majority of the cases of atrophic leucoplasia of the vulva, as decribed by Breisky, are developed upon a vulvar atrophy of the type described by Jayle, Thibierge and Marion, under the term of simple kraurosis. This type of kraurosis may be complicated by teleangiectasia (vascular kraurosis), inflammation of the glandular follicles (inflammatory follicular kraurosis) and leucoplasia, which occasionally undergoes epitheliomatous changes. He calls attention to the possible mistake of designating a pruritus vulvæ with lichenification from prolonged scratching, as kraurosis with leucoplasia; it is not, however, impossible, for a pruritus vulvæ complicated with lichenification, to ultimately develop into kraurosis with leucoplasia. He mentions the frequent association of pruritus and reports two cases of kraurosis with associated lichen planus of the vulva.

CONTRIBUTION TO THE STUDY OF THE FACTORS IN PAGOPLEXIA. Longin, p. 595.

Longin discusses the various forms and degrees of frost-bite as observed in military life. He mentions the frequency of tetanus as a complication, and advises a prophylactic injection of antitetanic serum in every case of gangræne, or even moderate loss of continuity of the integument. The frost-bites occurred mostly among soldiers physically below par, who had been in the trenches for six days or longer, their feet in mud or water of low temperature, but not to the freezing point. He mentions as an important ætiological factor, œdema of the legs, brought on by prolonged standing and weak heart action, caused by general fatigue and nerve strain. Additional factors causing the œdema are tight shoes, shrunken by the action of the water on the leather, and ill-fitting, spiral puttees. He believes that much of the frost-bites could be prevented by the use of a shoe giving absolute freedom to the foot, and the use of appropriate leggings. The use of the hot air douche and carbonization with superheated air (700 to 750 degrees) in cases of gangræne, have given him good results.

(*Ibidem*, December, 1915, No. 12.)

THE LEPROSY OF THE BIBLE. Dubreuilh and Bargues, p. 625.

The authors, in an interesting review of the subject, state their belief that the leprosy of the Old Testament was not true leprosy, but an indeterminable group of dermatoses (psoriasis, vitiligo, etc.,) and that the word leprosy was later used to designate moral turpitude. Its confusion with actual leprosy was due to an error in translation by Constatin who used the term to designate elephantiasis.

THE LYMPHOID CELLS AND PLASMA CELLS OF THE SYPHILITIC CHANCRE. Nanta, p. 638.

TRAUMATISM AND SCLERODERMA. Thibierge, p. 645.

Thibierge reports in abstract from the literature on the subject, cases of scleroderma with a history of antedating traumatism. He believes that traumatism is only an indeterminate ætiological factor in scleroderma, but it may stimulate into action the pathogenic conditions which bring on the different types of the disease.

ACTAS DERMO-SIFILOGRAFICAS.

(June and July, 1916, viii, No. 5.)

Abstracted by Vicente Pardo, M.D.

A CASE OF SYPHILIS OF THE LUNG. Sainz de Aja, p. 265.

The author gives a short review of the different manifestations of syphilis of the respiratory system, including tracheo-bronchitis, pleurisy, pneumonia, gummata of the lung and tracheochondritis, the last very frequently found in hereditary syphilis. His case, a young man of 26, gives a history of malaria and syphilis. He had a chancre in 1911 and was treated twice by mercury and biniodide. Four years later he complained of cough, expectoration, fever and a general breakdown. His case was diagnosed as tuberculosis and treated accordingly during one year, without success. The Wassermann test was strongly positive. The clinical examination of the patient showed a complete absence of the normal pulmonary murmur on the left side and a deep, dull sound on percussion. The X-ray picture showed a dark shade occupying the left hemithorax. The diagnosis of this case, made by the author, was "diffuse syphilitic pneumonia." The patient is recovering under anti-syphilitic treatment.

GIANT EXTRAGENITAL CHANCRE. Aja and Forno, p. 282.
Case report of a luetic chancre on the left temporal region.

CARBUNCLE OF THE NECK CURED BY STAPHYLOCOCCUS VACCINE. I. S. Covisa, p. 288.

The author's case, a lady, 53 years old, presented an enormous carbuncle on the back of her neck, dating from fifteen days prior to her entrance into the hospital. General symptoms were present, the fever reaching 38.5°C. at times. There was no sugar in the urine. The vaccine treatment was given a trial in this case and consisted of injecting 250 millions of staphylococcic vaccine as a first dose and successively 500 and 1500 millions. After a few days of treatment, the patient presented a red ulceration which healed up quickly and the recovery was complete after 20 days.

THE TREATMENT OF ALOPECIA AREATA BY THE CRAYON OF CHRYSAROBIN. I. Sicilia, p. 289.

The author advises the employment of a crayon made of wax, colophonium and spermaceti and containing a certain amount of chrysarobin, in those cases of alopecia areata which are particularly rebellious. He has obtained good results in several cases treated by him.

RUSSKI JOORNAL KOJNIKH E VENERICHESKIKH BOLEZNEI.

(July, Aug., Sept., 1915, xxx, Nos. 7, 8 and 9.)

Abstracted by M. L. Ravitch, M.D.

CLINICAL ASPECT OF CUTANEOUS LEISHMANIOSES. G. I. Meschersky, p. 3.

While cases of Oriental sore were formerly but seldom recorded by physicians and dermatologists of Russia, now that the true nature and various aspects of this disease have been worked out, such cases are easily recognized and more of them are being recorded. The author gives a description of his five interesting cases, one a sailor, the other four, soldiers. These five patients had been in service in Turkestan and the disease was discovered when they returned to Moscow. The author divides his cases into two groups: (1) papular-nodular form, consisting of two or more closely aggregated papules which grow and may coalesce, and (2) a typical sore, which, when fully developed, is dirty-reddish in color, tender, painful and sluggish.

The first case manifested the symptoms of the first group as typically described in many textbooks. The four other cases were of a mixed type; the lesions varied in size and virulence. In all the cases intracellular Leishman-Donovan bodies were demonstrated. In the first case there was no lymphatic involvement, but in others it was present to a marked degree. The first case yielded readily to treatment, but the others were rather refractory, since the author had to deal not only with Leishmania tropica, but also with secondary staphylococcic infection and the resultant metastatic lymphatic involvement.

THE ANATOMY OF LEISHMANIOSES AND CONCOMITANT GANGLIONIC LYMPHANGITIS. Bogrov, p. 10.

The anatomical picture of Oriental sore has been studied by many investigators, yet until the infectious agent was established the interpretation of the pathology was naturally difficult. With the discovery of the cause—Ovoplasma orientale (Marzinovski-Bogrov) seu Helcosoma tropicum (Wright) seu Leishmania tropica—the study of the lesions has been stimulated, but the relationship of the secondary nodules to this disease has not yet been established. Geigenreich believed these nodules to be an important factor, while Rapchevski (1889) thought the band-like lymphangitis the most important factor. Anatomically the disease has been recognized as a granuloma; Bogrov reviews the cases of Russian and foreign investigators and finds that though they may differ on some points, yet in substance they agree that a constant factor is the infiltration of the corium with plasma cells, which is what Bogrov has found in his own cases. The disease is confined to the epidermis and corium, extending down to the subcutaneous tissue; though Elliott reports two cases which evidently began in glandular structure, Bogrov says that Riche found giant cells present quite frequently; Unna looks upon the lesion as a chronic serofibrinous inflammation of the whole cutis, leading to central necrosis, softening and

ulceration: the corium being densely infiltrated with plasma cells, lymphoid and round cells, with an occasional giant cell.

HECTINE IN THE TREATMENT OF ORIENTAL SORE. Bogrov and Grinchar, p. 22.

Since the ætiology of Oriental sore has been established and also its relationship to other forms of Leishmanioses (Kala-azar, Anæmia splenica infantum), the therapy has been more rational. Chemical, thermic and surgical methods were formerly recommended. Among the chemical agents, zinc chloride, lactic acid, caustic potash and potassium permanganate were often applied. The employment of the thermo-cautery, Paquelin cautery, galvano-cautery, hot air, Finsen light, X-ray, radium and carbon dioxide snow have all been recommended. Based on the protozoan character of the infecting agent quinine and methylene blue have been used. Since its introduction, salvarsan has been administered with some success. In France and Russia hectine has been used extensively, particularly since the beginning of the European war, and the authors report that they have had success with it. While some physicians advocate the use of a vaccine, the authors doubt its efficacy, since a pure culture is obtained with difficulty and the immunizing power of such vaccines has not been established.

PEDICULOSIS CAPITIS. Spindler. p. 47.

Bogrov quotes Spindler's article on the prevalence of pediculosis capitis in East Landa. Among school children in some parts, he observed as high as 44 to 53.5%. Boys, on account of their shorter hair, were not affected as often or as severely as girls. In Revel's district school, out of 63 girls, 62 were affected.

The pediculi are mostly found on the back of the neck, on the braid. Hyperæmic areas—roseola pediculosi—usually occur soon after infection. The eruption, as well as the swelling of the neighboring glands are due, the author thinks, to toxines or protein products of the pediculi. At times pustules, pemphigoid blisters and moist eczema develop. In a great many cases the hair was matted, producing a mass called by the Russian dermatologists, "Koltoon." In some cases abscesses were found, often causing fever. Some cases were so neglected that the little patient succumbed to secondary infection. The author pleads for a more energetic method of eradicating this horrible scourge so prevalent in the rural districts of Russia.

AN UNUSUAL CASE OF EXTRAGENITAL SYPHILITIC INFECTION. Rosenberg, p. 62.

Landow quotes Rosenberg's case of extragenital syphilitic infection. Cases of extragenital syphilitic infection are rather frequent and physicians should be more alert to recognize them. Not infrequently they are the cause of wrong diagnosis. Rosenberg's case was in a man, 23 years old, who was bitten on the middle finger of the left hand. He was treated by a male nurse without any success; he then consulted a surgeon who advised an application of Burrow's solution. Later the finger was incised, but still the sore did not heal. The case was referred to the dermatological department. A thorough examination showed that the glands of the left axilla were involved. The Wassermann reaction was 4 plus. Papular syphilides were soon observed with an erythema in the maxillary region. This case reminds the author of similar cases cited in the medical literature, as the panaritium-like chancre of W. Taylor, *le chancre panaris* of Fournier.

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Abstracted by W. H. Guy, M.D.

SYPHILIS OF THE LARYNX WITH GUMMA OF THE LEFT VOCAL CORD.

Report of a case.

(*Ibidem*, July 29, 1916, civ, No. 5.)

ANAPHYLACTIC FOOD REACTIONS IN SKIN DISEASES. Albert Strickler, p. 198.

An experimental study of food anphylaxis in eczema, urticaria, acne and psoriasis. A 0.1 cc. dose of a saturated solution of a weak alkali extract of various proteids was injected endermically and the positive reactions comprised papule, erythema and tenderness at the point of injection. Other tests were made by placing protein on abraded surfaces with similar papule formation as in the other technique. Cow casein, egg, beef, mutton, pork, fish, oysters, clams, crabs, wheat, oatmeal, rice, barley, tomatoes and strawberries were used. The author concludes that food tests are of value in eczema by exclusion of offending foods, but that in other diseases, results are disappointing.

EARLY SYPHILIS. Oscar L. Levin, p. 212.

The author emphasizes the fact that a good prognosis may be offered syphilitics if the diagnosis is made early. Description is made of the various types of chancre seen clinically. It is urged that the diagnosis be made by clinical signs plus a dark-field examination for spirochætæ, the technique of which is explained. All lesions of the genitalia and all suspicious extragenital lesions should be examined in this way.

(*Ibidem*, Aug. 5, 1916, civ, No. 6.)

SYPHILIS AND TUBERCULOSIS IN THE SAME LUNG. Robert A. Kealty, p. 252.

Report of a case.

THE PATHOGENESIS OF PSORIASIS. Abner H. Cook, p. 255.

A report of ten cases of psoriasis treated with emetine hydrochloride and oral hygiene, in which three promptly recovered; one case refused treatment and was dismissed, one recovered after having a seminal vesiculitis cured, one cleared up after operation for fistula in ano, one following tonsillectomy; two patients were found to have psoriasis but no other disease and were dismissed uncured.

(*Ibidem*, Aug. 12, 1916, civ, No. 7.)

CONGENITAL SYPHILIS; THE PROGNOSIS AND MODERN TREATMENT, Fred Wise, p. 293.

A review of recent literature, together with personal observations of the author, may be briefly summarized as follows.

A more cheerful prognosis is made possible due to recent discoveries in bacteriology, serology and treatment, together with more accurate knowledge of the principles of infant feeding and the general care of the luetic infant. The mortality is highest during the first year but decreases from month to month. The earlier the beginning of treatment the better the prognosis, so that treatment should be early as well as intensive. Mercury is given by inunction or intra-muscular injection. Salvarsan is administered by injection into the cubital or cranial veins. Treatment comprises definite courses and is controlled by the Wassermann reaction, as in adults.

(*Ibidem*, Aug. 26, 1916, civ, No. 9.)

FROSTBITE IN THE HAND RESEMBLING RAYNAUD'S DISEASE. N. S. YAWGER, p. 406.

Report of a case.

(*Ibidem*, Sept. 9, 1916, civ, No. 11.)

QUARTZ LIGHT IN CUTANEOUS DISEASES. EDWARD PISKO, p. 493.

The author speaks in terms of highest praise of therapy with the Kromayer and the Bach-Nagelschmidt lamps, with particular reference to the latter, which he recommends especially in diseases of the scalp.

A TEST FOR SYPHILIS. GEORGE B. UBEL, p. 503.

The author describes a test applied to a limited number of cases in which it checked closely the Wassermann, being perhaps a little more sensitive. The reaction depends upon the established fact that bacteria react in much the same manner as colloids: that one colloid may be absorbed by another. It is assumed that colloid is normally present in blood serum and absent in cerebrospinal fluid. Addition of a one to one hundred solution of bichloride, to a nonsyphilitic serum, produces precipitation—added to a syphilitic serum, no precipitation occurs because of a normal colloid being absorbed by the syphilitic element. There being no colloid in cerebrospinal fluid, the reading of a result is the opposite to that in the blood serum.

THE RELATION OF DIET TO DISEASES OF THE SKIN. ALBERT STRICKLER, p. 506.

The author's summary:

(1) In psoriasis we are dealing with a disease of disturbed nitrogen metabolism. In this disease there is a marked nitrogen retention; and when the patient is placed on a low protein diet, particularly when the eruption is extensive, the disease is influenced very favorably.

(2) In eczema, in about fifty per cent. of the cases, a correction of diet as shown by the anaphylactic food tests, is productive of good therapeutic results. In fact, these should be made in every case of chronic eczema, because physicians of experience realize the difficulties in treating this group of cases.

(3) In acute urticaria, the anaphylactic food tests are of value from the view point of both prophylaxis and therapeutics, while in chronic urticarias their value is questionable.

(4) In acne vulgaris there is evidence in most cases of an intestinal toxæmia, as shown by the complement fixation tests, and food sensitization does not play a rôle in the ætiology of this affection.

(*Ibidem*, Sept. 16, 1916, civ, No. 12.)

SECONDARY SYPHILITIC LESIONS OF THE TONGUE. CONSTANT SAISON, p. 547.

The author describes the mucous patch as the most frequent lingual syphilide, located usually on the dorsal surface, tip, or edges of the tongue, less frequently on the under surface. Patches are rounded or oval, opaline or bluish-white in color, slightly elevated and at times forming true vegetating plaques. At times superficial ulcerations are noted. Tongue lesions differ from those of other locations as to elevation, fœtid discharges, etc., due to motility and mechanical cleansing by food, drink, etc.

Deep fissures, with white, punched out borders and an ulcerating or normal fundus, are also noted on the dorsal surface.

The ulcerating form of mucous patch is usually noted at the borders of the tongue, particularly near points of irritation. They are covered by a whitish pellicle at the borders and have a red base that bleeds easily.

The lingual tubercle begins as a papule with a broad indurated base but free of underlying structures. They never exceed 1 cm. in dimensions and secondary ulceration is never serpiginous or phagadænic. The tubercle always leaves a superficial, small, stellate scar which never involves underlying structures.

The cicatrix of a true ulcerating syphilide of the tongue closely resembles that following the tuberculous type, differing only in that it is more extensive.

(*Ibidem*, Sept. 23, 1916, civ, No. 13.)

CONGENITAL SYPHILIS. WALTER JAMES HEIMANN, p. 592.

The author's summary admirably abstracts his article and is quoted verbatim: "Congenital syphilis is syphilis acquired during intrauterine life through the placenta, which, after having become infected, plays the part of the primary lesion. From this point the umbilical vein conveys the spirochætæ to the fœtus, the liver being the first organ involved. Thence the spirochætæ are rapidly disseminated throughout the fœtus. Here all differences between congenital and acquired syphilis cease to exist. Subject to the month of fœtal infection, the infant presents cutaneous and systemic evidences of the disease in its secondary, latent or tertiary stages, and the tertiary stage may be protracted for years, or tertiary changes late in adolescent or early in adult life may be the first signs of the congenital infection. Remarkable as such facts may appear, they need cause no astonishment, for in acquired syphilis we see frequently enough examples of freedom from secondary manifestations, the first reappearance of activity occurring twenty years or more after the primary lesion, in the form of tertiary changes. These facts serve only to prove the identity of congenital and acquired syphilis.

"In conclusion, one more circumstance must be recorded, and this depends not upon the disease, but upon the age at which the disease is acquired. Congenital syphilis is transmitted to its victim during the most important period of development, namely, before birth, and the struggle to overcome this burden takes place partly before and partly soon after birth. Thus, aside from its actual pathological alterations, the disease may cause all sorts of anomalies of development, physical deformities and dystrophies and mental backwardness, if not actual imbecility, or even insanity. Aside from these considerations, prenatal syphilis and postnatal syphilis are identical."

(*Ibidem*, Sept. 30, 1916, civ, No. 14.)

THE WAKE OF THE WASSERMANN TEST. James Cabell Minor, p. 651.

The author emphatically states that not all Wassermann positive patients should be apprised of their condition, on account of the deleterious effects upon their general health and happiness as the result of such knowledge.

Two cases in candidates for matrimony are cited, in which the individuals were happy and in robust health when they presented themselves; for this reason the author advised against a Wassermann in spite of the fact that a history of an old infection was present, and condemns as pernicious the practice of acquainting such patients of the result of the Wassermann test in view of the fact that these marriages were prevented and the contracting parties made very unhappy. One other case is quoted of a similar result in an elderly business man who asked for a Wassermann test for his own satisfaction.

(*Ibidem*, Oct. 7, 1916, civ, No. 15.)

ROENTGEN RAY THERAPEUTICS. Judson A. Quimby and Will A. Quimby, p. 683.

Two comparatively recent innovations are of great value to the Roentgen therapeutist; they are the measured dose by use of the platinum barium cyanide pastille and the introduction of the Coolidge tube which gives a more uniform penetration.

A considerable portion of the therapeutic effect of the X-ray is due to definite blood changes; a definite leucocytosis occurs shortly after exposure, that is easily demonstrable. Leucocytosis is general or local even when a very small portion of the body is exposed to rays. Locally, leucocytosis is augumented by blood vessel dilatation, due to the action of X-rays on the terminal nerve endings. These facts have led operators to somewhat free exposure of the bodies of patients, maintaining, however, thorough protection of the area immediately surrounding the primary area. Experience with fractional and massive doses, together with administration of massive doses in short or long exposures, has encouraged the use of rays over longer periods of time.

Theoretically, the action of X-rays is due to atomical dissociation, producing changes in cell chemistry.

Application of the X-ray is painless. High voltage currents produce a sensation of warmth, exhilaration, perhaps some rise of blood pressure, while if a low voltage is used, the effects are sedative, with lowering of vascular tone and the patient will often go to sleep.

The advent of the very high voltage tube permits administration of tremendous doses without injury to the skin. The use of various filters also prevents rays of low penetration from affecting the skin surface. Deeper therapeutic effect is thus made possible.

MEDICAL RECORD.

(Aug. 26, 1916, xc, No. 9.)

Abstracted by W. H. Guy, M.D.

SEBORRHOEIC DERMATITIS. William P. Cunningham, p. 353.

A discussion of the symptoms and differential diagnosis, together with a short résumé of the treatment.

(*Ibidem*, Sept. 2, 1916, xc, No. 10.)

SOME CLINICAL ASPECTS OF RADIUM THERAPY. WALTER P. CHASE, p. 410.

This paper deals with the results of radium therapy as palliative or curative measures in the treatment of malignancy; when palliative, the influence is fourfold: (1) analgesic, (2) inhibition or arrest of malignancy in varying degrees and periods of time, (3) lessening or destroying offensive odors in ulceration, malignant or non-malignant, (4) as a hæmostatic in uterine hæmorrhage.

Radium is recommended as a routine post-operative procedure in malignancy to lessen the frequency of recurrence. Numerous authorities are quoted who report favorable results from its use.

Preoperative radiation is urged for its decongestive effects, whereby motility is increased and the size and relations of tumors are determined when the surgeon is in doubt of removal, on account of tumefaction and fixation.

"Epithelioma is more readily mastered than most forms of cancer, particularly the basal cell variety. If the ulcer occurs near or after middle life, particularly if it is of the cutaneous variety, and not of too long standing or not consisting of old and well differentiated cells occurring on mucous surfaces, they are more refractory, but with wise management cases are recoverable."

The use of needles containing radium is mentioned as a new and promising method in the treatment of malignancy of the throat, tongue, tonsils, etc. The fact is noted that X-ray cancer is curable by radium.

Intravenous injections of radium salt or emanation in chronic rheumatism, arteriosclerosis with high blood pressure, with or without renal or hepatic complication, neuritis, etc., give favorable results.

Good results are also noted in tuberculous glands and goitre.

Numerous cases are reported.

PELLAGRA: ITS ÆTIOLOGY AND TREATMENT. J. F. YARBROUGH, p. 416.

The author believes the cause of this disease to lie in a protein-free carbohydrate diet, which, when taken into the stomach is converted into "sour mash" of the distillers. This, three times daily, over extended periods of time, so cripples metabolic activity that there is an absorption of this material without the necessary chemical changes.

It is stated that treatment to be successful must combine dietetic and medicinal measures; that is: a carbohydrate-free diet, prescribed together with twenty to thirty drops of dilute nitric acid, well diluted, one hour before meals. The acid is used to change the reaction of the relatively acid pellagrous blood to alkaline. The author claims that diet alone is insufficient and reports several cases to support his contention.

THE WASSERMANN REACTION IN TWO HUNDRED AND FIFTY-ONE TUBERCULOUS DISPENSARY CASES. W. RAY JONES, p. 418.

A report of two hundred and fifty-three Wassermanns taken as routine in patients presenting themselves at a tuberculosis dispensary. Seventy-three were positive. Ages varied from sixteen to seventy. The reaction varied from one plus to three plus. Objective symptoms of lues were absent and histories were negative.

(*Ibidem*, Sept. 9, 1916, xc, No. 11.)

HEREDOSYPHILITIC DENTAL STIGMATA. JOHN BETHUNE STEIN, p. 445.

The first part of this paper comprises a presentation of the embryological origin and development of teeth, particular attention being directed to the time of dentinification. Stigmata are produced only during development, the result of interruption of dentinification. Syphilis so profoundly affects the entire organism and the cells of the dental germs in particular as to produce characteristic changes, and it is about the only disease that could produce these stigmata. Rachitis is rare before the second year; scarlatina, measles, typhoid, etc., are rare during the first year. Depending upon the time of invasion, the resulting dental stigmata are rather characteristic. The first molar, incisor and cuspid teeth of the second dentition most frequently show changes due to heredosyphilis, because these teeth are undergoing dentinification at the time when the syphilitic process is most intense. The stigmata described include Hutchinson's teeth, flattened, sawlike and stunted teeth, together with hypoplastic morsal surfaces, lines, grooves, pits and furrows. A symmetrical hypoplasia of the morsal surfaces of all four first molars is given as a sign of greatest importance in the diagnosis of hereditary syphilis. Delayed dentition, persistence of deciduous teeth, absence of certain teeth, abnormalities of position, etc., are also mentioned as diagnostic in a large proportion of cases.

(*Ibidem*, Oct. 7, 1916, xc, No. 15.)

A REVIEW OF THE HISTORY OF CHEMICAL THERAPY IN CANCER. WILLIAM S. STONE, p. 628.

From the latter part of the thirteenth century up to the present moment, many physicians of note as well as charlatans have spoken for or against the use of the so-called "cancer cures," comprising pastes of arsenic, zinc or the alkaline caustics, but, inasmuch as they have been conceived either in ignorance or in hope of personal gain, they have been universally condemned. Many favorable results have been claimed for cancer pastes, some true but others fallacious, because of errors of diagnosis. In closing, the author states that there is sufficient evidence of value in the use of chemical caustics to justify further study.

(*Ibidem*, Oct. 14, 1916, xc, No. 16.)

RECURRENT ACRODERMATOSIS OF WARM COUNTRIES. R. RUIZ-ARNAU, p. 677.

The author presents a clinical picture of pruritis, painful papule and vesicle formation affecting the bases of the toes, the heels and the sides of the feet. Vesicles rupture, leaving crater-like depressions which ooze serum for a time and then form a crust. He believes the condition to develop only under favorable circumstances and upon a pathological basis of a primary lymphectasia, which, in turn, is due to climatic conditions. The treatment comprises rest in bed and application of mild antiseptic and protective preparations.

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